

THE MIGRANT

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to Record and Encourage the Study of Birds in Tennessee.
Issued in March, June, September, and December.

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NOTICE TO RESEARCHERS AND LIBRARIES

Volume 68, Number 1, has preceded this issue. Volume 67, Numbers 1-4, is printed in this single issue. Several references in this issue include dates later than the cover date of 1996. The journal is behind schedule and it has been necessary to use material which, in some cases, was submitted and accepted later in the year.

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REPORT OF THE TENNESSEE BIRD RECORDS COMMITTEE FOR 1995

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This report describes actions taken by the Bird Records Committee of the Tennessee Ornithological Society from 1993 into late 1995. Committee members and alternates who served during this period were Don L. Davidson, Gilbert A. Foster, Mark A. Greene, Richard L. Knight, Martha G. Waldron, and Terry J. Witt.

BRIEF HISTORY OF THE COMMITTEE

During the 1981 TOS Fall Symposium at Paris Landing State Park a proposal was presented concerning the preparation of an official list of Tennessee birds (Stallings 1981). A resolution was passed at the 1982 TOS Spring Meeting in Brentwood establishing the TOS Certification Committee to verify such a list (Stallings 1982). At that time the committee consisted of three voting members and three alternates, with the editor of *The Migrant* serving as chairperson *ex officio*. After much work "The Official List of Tennessee Birds" was prepared and published in 1983 (Nicholson 1983) with an addendum published five years later (Nicholson and Stedman 1988). An amended resolution governing the committee was passed at the 1988 TOS Fall Symposium at Land Between the Lakes (Robinson 1989). Only two significant changes came about with this resolution: (1) the name of the committee was changed to the Bird Records Committee, and (2) the committee would elect a chairperson (i.e., secretary) from among its own ranks. A change of the committee's structure to five voting members and one alternate came about with the passage of another amended resolution at the 1994 TOS Spring Meeting in Johnson City [*Tennessee Warbler* 16(2):10-13, Aug. 1994]. Further approved additions to the official state list were published recently (Knight 1993).

METHODS

Acceptance criteria have remained the same. A species is placed on the confirmed list based upon either (a) extant, verified specimen, photograph, or sound recording, each accompanied by written details or (b) satisfactory written details of three independent sight records. Lacking these levels of documentation, a species is placed on the provisional list based upon one or two sight records with satisfactory written details. Acceptance to either list requires a unanimous decision by the committee. Records that are not accepted may be appealed, preferably if new or previously

unreported details are available. The committee only acts upon potential first, second, or third state records of a species. As stated earlier, the purpose of the committee is the verification of an official list of birds for Tennessee, rather than the evaluation of any report of rare or unseasonal birds.

The non-acceptance of any report may be the result of vague or insufficient documentation rather than the committee's opinion that the bird was misidentified. Rigorous standards should be adhered to regarding the addition of data to the historic record. Excellent guidelines for proper documentation are provided by Stedman and Robinson (1987) or Dittmann and Lasley (1992).

In this account, the committee reports 24 accepted records of 18 species and six records of six species that were not accepted. Three species previously on the list are removed. As a result of committee action taken up to this point, the official list of Tennessee birds consists of 362 confirmed species and 20 provisional species for a total of 382 species.

Observers who submitted documentation to the committee are Clyde Blum, Mary Lynn Buttram, Robert Casey, Don Davidson, Lillian H. Dubke, Murray Gardler, Mark Greene, John Henderson, Gene and Shannon Knight, Richard L. Knight, Dollyann Myers, Dick Preston, Virginia Reynolds, Tommie Rogers, Robert and Martha Sargent, Damien Simbeck, Stephen J. Stedman, Ann Tarbell, Martha Waldron, Jeff R. Wilson, Terry J. Witt, Elizabeth Wolfe, Linda and John Zempel. The committee thanks these people for their cooperation. Furthermore, the committee encourages birders to write and publish full accounts of their observations, as these will become significant historic notes.

Records mentioned only in seasonal summaries in *The Migrant* or *Audubon Field Notes* (formerly *American Birds*) are cited in the text.

ACCEPTED RECORDS

Pacific Loon (*Gavia pacifica*): Written documentation, with a sketch, of a single bird seen at the mouth of the Big Sandy River (Pace Point area), Henry County, from 11-13 November 1994 (*Aud. Field Notes* 49:56, 1995) was accepted. Photographs and written documentation of a single bird seen at Woods Reservoir, Franklin County, on 26 December 1994 were also accepted. Both birds were compared to nearby Common Loons (*G. immer*). Details adequately eliminated Arctic Loon (*G. arctica*). These become the second and third state records and the species is moved up from the provisional list to the confirmed list.

Yellow-billed Loon (*G. adamsii*): Written documentation and a published photograph (*Aud. Field Notes* 49:155, 1995) of a single bird seen at Dale Hollow Lake, Clay County, from 18-21 February 1995 were accepted. This becomes the first state record and, with the photograph, the species is placed on the confirmed list.

Clark's Grebe (*Aechmophorus clarkii*): Written documentation of a single bird seen at Nickajack Lake, Marion County, from 18-21 March 1993 (*Am. Birds* 47:412, 1993) was accepted. The descriptions clearly eliminated Western Grebe (*A. occidentalis*). This becomes the first state record and the species is placed on the provisional list.

White-faced Ibis (*Plegadis chihi*): Written documentation, with a sketch, of a single bird seen near Phillipy Pits, Lake County, on 13-14 August 1994 (*Aud. Field Notes* 49:57, 1995) was accepted. This becomes the second accepted state record, with the species already on the confirmed list.

Roseate Spoonbill (*Ajaia ajaja*): Written documentation and a photograph of a single bird seen in northern Lake County (and adjacent Fulton County, Kentucky)

from 12-17 September 1994 (*Aud. Field Notes* 49:57, 1995; Parker *et al.* 1995) were accepted. This becomes the third state record and the species is elevated from the provisional list to the confirmed list.

Mute Swan (*Cygnus olor*): The committee approved the addition of this non-native species to the official state list. Numerous Mute Swans are kept in captivity and some have been known to have escaped or been released in Tennessee. Despite this, several reports of this species seem to indicate a migratory movement with other waterfowl. The apparent source of these birds is the southwestern Great Lakes population, rather than the mid-Atlantic coast population. For example, Brewer *et al.* (1991) describe an expanding population in Michigan. Written documentation and a photograph of four Mute Swans in Washington County from 30 December 1983 until 11 February 1984 (*Am. Birds* 38:316, 1984) were accepted as a specific instance of migrant birds in Tennessee. While their point of origin could be debated, the committee felt that sufficient evidence of their natural occurrence existed. The photograph allows the species to be placed on the confirmed list. With the species thusly accepted, the committee chose not to review other reports, previous or subsequent.

Long-billed Curlew (*Numenius americanus*): Written documentation of a single bird seen flying over the Earth Complex, Shelby County, on 27 September 1993 (*Am. Birds* 48:118, 1994) was accepted. This becomes the third record for the state and the species is moved up from the provisional list to the confirmed list.

Little Gull (*Larus minutus*): Written documentation of a single bird seen at Chickamauga Lake, Hamilton County, from 20 January to 12 February 1994 (*Aud. Field Notes* 48:208, 1994) was accepted. This is the first state record and the species is placed on the provisional list; however, if any photos exist, this could be upgraded.

Lesser Black-backed Gull (*Larus fuscus*): Written documentation of a single adult gull seen at Nickajack Lake, Marion County, from 27 February to 22 March 1993 (*Am. Birds* 47:257, 1993) was accepted. Written documentation of a single adult gull seen at Pace Point, Henry County, on 12 November 1994 (*Aud. Field Notes* 49:58, 1995) was also accepted. These become the third and fourth accepted state records, with the species already on the confirmed list. (Normally the committee acts on just the first three acceptable reports, but the Pace Point bird was reported and voted on before the Nickajack Lake bird.)

Eurasian Collared-Dove (*Streptopelia decaocto*): Written documentation and photographs of up to five birds seen in Chattanooga, Hamilton County, from 24 October 1994 into 1995 (*Aud. Field Notes* 49:148, 1995) was accepted. Written documentation of a single bird seen near Trenton, Gibson County, on 28 October 1994 was also accepted. These become the first and second state records and the photographs allow the species to be placed on the confirmed list. However, another event "muddies the water" a bit. The occurrence, and eventual nesting, of this species in Memphis during the spring of 1994 was proven to be due to a release of captive collared-doves (M. Waldron *pers. comm.*; *Aud. Field Notes* 48:307, 1994). Thus, the origin of the birds were accepted above might be questioned. On the other hand, this species is expanding rapidly in Florida and along the coasts to Louisiana (*Aud. Field Notes* 48:952, 1994) and the Carolinas (*Aud. Field Notes* 48:935, 1994), and beyond. This species is relatively new to North America and, as such, is not well described, if at all, in American field guides. Smith (1987) provides the necessary identification details.

Anna's Hummingbird (*Calypte anna*): Written documentation and photographs of a single bird measured and banded at Nashville, Davidson County, on 6 January 1995 (*Aud. Field Notes* 49:157, 1995) were accepted. The bird was present for some weeks before and after the date of banding. This becomes the first state record and the species is placed on the confirmed list.

Allen's Hummingbird (*Selasphorus sasin*): Written documentation and photographs of a single bird measured and banded near Chattanooga, Hamilton County, on 27 December 1993 (*Aud. Field Notes* 48:208, 1994) were accepted. This becomes the first state record and the species is placed on the confirmed list. Interestingly, 13 days after being banded in Tennessee this bird was recaptured about 100 km to the south in Cartersville, Georgia (Swiderski 1994).

Say's Phoebe (*Sayornis saya*): Written documentation of a single bird seen near Phillippy, Lake County, on 7 May 1994 (*Aud. Field Notes* 48:307, 1994) was accepted. Written documentation of a single bird seen near Halls, Lauderdale County, on 14 February 1995 (*Aud. Field Notes* 49:158, 1995) was also accepted. These become the second and third state records, with the species already on the confirmed list.

Violet-green Swallow (*Tachycineta thalassina*): Written documentation of a single bird seen at Austin Springs, Washington County, on 27 March 1994 (*Aud. Field Notes* 48:298, 1994) was accepted. This becomes the first state record and the species is placed on the provisional list.

Townsend's Warbler (*Dendroica townsendi*): Written documentation of a single bird seen on Rich Mountain Road, Blount County, on 3 December 1994 (*Aud. Field Notes* 49:148, 1995) was accepted. Written documentation of a single bird seen at Pickwick Landing State Park, Hardin County, on 30 December 1994 (*Aud. Field Notes* 49:158, 1995) was also accepted. These become the first and second records in the state and the species is placed on the provisional list.

Western Tanager (*Piranga ludoviciana*): Written documentation of a single bird seen at Franklin, Williamson County, from 7 December 1992 into February 1993 (*Migrant* 64:49, 1993) was accepted. Written documentation of a single bird seen near Dyersburg, Dyer County, on 21 August 1994 (*Aud. Field Notes* 49:60, 1995) was also accepted. These become the second and third state records and the species is elevated to the confirmed list.

Shiny Cowbird (*Molothrus bonariensis*): Written documentation and a photograph of a single male seen on President's Island, Shelby County, from 6-10 July 1995 (*Aud. Field Notes* 49:939, 1996) were accepted. This becomes the first state record and the photograph allows the species to be placed on the confirmed list. Smith and Sprunt (1987) describe the arrival of this species to the U.S. and provide identification details. This rapidly expanding species has since been found as far west as Texas (*Am. Birds* 44:465, 1990) and Oklahoma (Grzybowski and Fazio 1991) and as far north as New Brunswick (Benoit 1995). Thus, the appearance of Shiny Cowbird in Tennessee was not unexpected.

Bullock's Oriole (*Icterus bullockii*): Written documentation and a photograph of a single male seen at Nashville, Davidson County, from 3 December 1994 into 1995 (*Aud. Field Notes* 49:158, 1995) were accepted. This becomes the first accepted record in the state and the photos allow the species to be placed on the confirmed list. A previous report (Witt 1986) has yet to be acted on by the committee. Bullock's Oriole had been lumped with Baltimore Oriole (*I. galbula*) until 1995 (A.O.U. 1995).

RECORDS NOT ACCEPTED

Garganey (*Anas querquedula*): Written documentation of a single eclipse-plumaged male seen at the Earth Complex, Shelby County, on 3 September 1994 (*Aud. Field Notes* 49:57, 1995) was not accepted (3-2 vote). While the identification appeared to be correct, origin was the prevailing point of contention. All records from interior North America have been from spring to early summer (Spear *et al.* 1988), including the previous accepted Tennessee record (*Am. Birds* 32:1018, 1978). The 1994 report does not fit the currently known pattern of vagrancy; however, it will be re-evaluated.

Ferruginous Duck (*Aythya nyroca*): Written documentation of a single bird seen at Shelby Farms, Shelby County, from 16 June to 4 July 1995 (*Aud. Field Notes* 49:940, 1996) was not accepted (0-5 vote). The identification was judged to be correct, but the possibility of natural vagrancy was deemed highly unlikely. This species breeds from central Europe to central Asia and winters from Africa to India (Madge and Burn 1988). There are no records for North America (A.O.U. 1983). Additionally, this species is popular in waterfowl collections.

Swainson's Hawk (*Buteo swainsoni*): Written documentation of a single bird seen flying over Hatchie NWR, Haywood County, on 28 April 1992 (*Am. Birds* 46:435, 1992) was not accepted (1-4 vote) due mainly to the brevity of the sighting.

California Gull (*Larus californicus*): Written documentation and photographs of a single immature gull seen at Pickwick Dam, Hardin County, on 8 December 1990 and 12 January 1991 (*Am. Birds* 45:284, 1991) was not accepted (0-5 vote). Gull experts from out-of-state were consulted. The above decision was based on the consensus of these consultants that the documentation was insufficient to eliminate other possibilities, especially Herring Gull (*L. argentatus*). Identification of the larger gulls is immature plumage can be quite vexing. That very competent observers were involved made the decision even more difficult.

Thayer's Gull (*L. thayeri*): Written documentation and photographs of a single immature gull seen at Pickwick Dam, Hardin County, on 28-29 December 1990 (*Am. Birds* 45:284: 1991) was not accepted (0-5 vote). Comments on the California Gull report apply to this report also.

Eurasian Collared-Dove: Written documentation of a single bird seen at Livingston, Overton County, on 26 February 1995 (*Aud. Field Notes* 49:157, 1995) was not accepted (1-4 vote) due to inadequate details to eliminate other possibilities.

SPECIES REMOVED FROM LIST

Ring-necked Pheasant (*Phasianus colchicus*): Despite numerous introduction attempts, this species has never become established anywhere in Tennessee. Recent sightings can be attributed to releases by local propagators. The committee felt that the historical and current status of this species does not justify its inclusion on the official state list.

Caribbean Coot (*Fulica caribaea*): The authenticity of all North American records and the status of this form as a valid species have been questioned (Roberson and Baptista 1988). This form has been removed from the American Birding Association's checklist (DeBenedictis 1992) as well.

Monk Parakeet (*Myiopsitta monachus*): Although this species has been reliably reported in the state (Robinson 1990), no established population exists here. The origin of birds seen in Tennessee is unknown. The dispersal patterns of this species

are little known as well. That the Tennessee occurrences were vagrants from established populations elsewhere in the U.S. seems unlikely. Although the status of Monk Parakeet in Tennessee is less clear-cut than that of the other two species in this category, the committee's decision was unanimous.

CORRIGENDA

A couple of typographical errors crept into the previous committee report (Knight 1993):

p. 56 — the second Varied Thrush record was in mid-February of 1992, not 1991.

p. 57 — Sargent 1993 was published in *Migrant* volume 64; Waldron 1989b was published in *Migrant* volume 60.

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THE DISTRIBUTION OF WARBLERS IN TENNESSEE DURING NESTING SEASON

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Abstract. A distributional summary of the 25 species of warblers nesting in Tennessee is presented. Data is compiled primarily from personal observations augmented by published county forays, Breeding Bird Survey data, and by other annotated checklists of Tennessee birds. Little change is seen in the overall distribution of warblers since Albert Ganier's list of Tennessee birds was published in 1933. However, several species have been noted to decline, especially in the last 30 years, with the decreasing availability of suitable habitat.

The first published annotated list of Tennessee birds was *A Distributional List of the Birds of Tennessee* by Albert F. Ganier (1933). If one leaves out the Bachman's Warbler (*Vermivora bachmanii*) and combines the Sycamore Warbler with the Yellow-throated Warbler into one species, a total of 24 warblers was listed and their distribution given in West, Middle, and East Tennessee. The nesting warblers found in Tennessee are: Blue-winged, Golden-winged, Northern Parula, Yellow, Chestnut-sided, Black-throated Blue, Black-throated Green, Blackburnian, Yellow-throated, Pine, Prairie, Cerulean, Black-and-white, American Redstart, Prothonotary, Worm-eating, Swainson's, Ovenbird, Louisiana Waterthrush, Kentucky, Common Yellowthroat, Hooded, Canada, and Yellow-breasted Chat. All 24 of these still nest in Tennessee, and the Magnolia Warbler has recently been added which brings the total to 25.

The distributions and frequencies of these 25 species considered to be nesting throughout the state are based mostly on observations of the presence of singing territorial males in typical habitat. Most of these observations were made within the last two decades, but this study has been ongoing for 30-50 years by the first three authors and joined by Mark H. Mayfield in the last 15 years. The complete set of *The Migrant* has been reviewed, so that comparisons of frequency and distribution of past records can be made. Tennessee Ornithological Society (TOS) county forays (Table 1), initiated in 1971, have provided much useful information. Data from the Breeding Bird Surveys from the last quarter century have also been helpful. A few examples of physical evidence of nesting warbler species have been found over the years, but it has not been our intention to establish positive physical records of nesting during the course of this study. Nevertheless, we feel confident that all 25 species do in fact nest in Tennessee because they have been found repeatedly during nesting season in the areas as described below.

Blue-winged Warbler (*Vermivora pinus*): The Blue-winged Warbler is not found in West Tennessee, west of the hills forming the divide west of the Tennessee River, except in McNairy County, where seven were found on the 1981 foray (Nicholson 1984). Twenty-two were listed in Decatur County on the 1978 foray (Nicholson

TABLE 1. Tennessee Ornithological Society County Forays

Warbler species	Lauder	McNairy	Benton	Decatur	Lawrence	Grundy	White	Fentress	Campbell
Golden-winged Warbler	0	0	0	0	0	26	4	4	44
Northern Parula	82	43	5	0	27	8	10	77	18
Yellow Warbler	7	1	8	0	0	1	0	60	98
Black-th. Green Warbler	0	0	0	0	0	8	5	9	7
Yellow-throated Warbler	25	37	16	0	14	7	36	90	41
Prairie Warbler	0	30	129	14	44	36	7	90	41
Black-and-white Warbler	0	23	15	15	7	49	12	96	0
American Redstart	0	0	0	0	16	6	0	13	141
Prothonotary Warbler	121	243	67	83	67	3	2	0	0
Worm-eating Warbler	3	14	9	2	7	1	16	62	24
Swainson's Warbler	4	7	0	0	0	0	1	4	3
Ovenbird	0	16	7	5	10	21	36	140	159
Louisiana Waterthrush	4	38	28	12	97	4	13	32	17
Kentucky Warbler	40	96	73	61	104	13	49	66	74
Hooded Warbler	12	3	6	15	30	38	48	62	120
Yellow-breasted Chat	237	133	167	0	512	38	103	105	223

^a Coffey, B.B., Jr. 1976^b Nicholson, C.P. 1984.^c Alsop, F.J., III. 1976^d Nicholson, C.P. 1980^e Alsop, F.J., III and M. Williams. 1974^f Dubke, K.H. and L. Dubke. 1977^g Bierly, M. 1982^h Nicholson, C.P. 1981ⁱ Alsop, F.J., III. 1976

1980), and 16 were recorded in Benton County (Jacobson 1976). The region of Tennessee recording the highest number of Blue-winged Warblers is in Middle Tennessee in the Western Highland Rim extending from Cheatham, Dickson, and Davidson Counties southwest through Hickman and Lewis to Lawrence, Perry, and Wayne Counties. Forty-four birds were found on the Lawrence County foray in 1972 (Alsop and Williams 1974). In the Western Highland Rim area they are sometimes fairly common on open, brushy hillsides with scattered small trees. One bird was heard on the Giles-Maury County line, but they are absent from the cedar glades in the lower parts of the Central Basin. In 1975 George Mayfield found one singing male along the railroad cut northwest of Tullahoma, and Ruth Luckado (pers. comm.) reported a few east of that area. Searches in suitable habitat in Warren, Franklin, and Lincoln Counties over a 25-year period failed to reveal this species. Blue-winged Warblers were reported in DeKalb and Jackson Counties (Vogt pers. comm.), and Mark and George Mayfield found five on Short Mountain in Cannon County in 1991. On the Grundy County foray in 1974 one bird was heard but it was not reported in *The Migrant* (Dubke pers. comm.), and a Brewster's Warbler (*Vermivora leucobronchialis*) hybrid was seen. A pair was found on the Cumberland Plateau in Marion County in 1991 (Dubke pers. comm.). Blue-winged Warblers were once found in the Chicamauga Military Park where habitat was good, but they are still present in the nearby northern Georgia hills (Dubke pers. comm.).

Mark Mayfield found several in Polk County in 1983, but they are mostly absent from the East Tennessee Valley. In 1976 a nest was found in Alcoa Marsh (Jacobson 1976) and a nest was found at Fall Creek Falls State Park area in 1940 (Ganier and Clebsch 1940). Blue-winged Warblers are rare or absent in upper East Tennessee, but one singing male remained in Sullivan County until 30 May in 1986 (Dubke and Dubke 1986). A hybrid Brewster's Warbler singing a Blue-winged Warbler's song was found in the Roan Mountain State Park area by Fred J. Alsop in 1996 (W. Coffey pers. comm.).

Golden-winged Warbler (*Vermivora chrysoptera*): In June 1978, Mark Mayfield found one singing territorial male Golden-winged Warbler in Lewis County, in a site where Blue-winged Warblers are regular during breeding season. A singing territorial Golden-winged Warbler was observed at the same site near Gordonsburg on Little Grinders Creek for the next two summers. Futile attempts were made to net and band it in 1979, and one has not been heard since 1980. A mate was not found, and there was no evidence of nesting. With this lone exception, this species is not found in Tennessee west of the Cumberland Plateau, where it is rarely seen from Grundy to Fentress and Campbell Counties. Its preferred habitat is sparse, cutover pine woods or in young pine plantations on the plateau. It is rarely found in similar habitat in the valleys, ridges and mountains of East Tennessee up to about (1220 m) 4000 ft. Knight (1994) lists it as a regular summer resident of Roan Mountain State Park. In 1994, the Mayfields found five singing males in the area of Street Gap and Devil's Fork Gap in Unicoi County, and at Doll Flats in Carter County.

Northern Parula (*Parula americana*): The Northern Parula Warbler is widely but sparingly found in all three grand divisions of Tennessee, usually high in tall trees along streams. It is fairly common in the west where streamside habitat abounds. It is uncommon in the Western Highland Rim from Cheatham to Lawrence Counties, and it is quite rare or absent in the Central Basin. It is fairly commonly found along streams of the Cumberland Plateau, rare in the lower Tennessee River valley, but more common in the upper East Tennessee mountains.

Yellow Warbler (*Dendroica petechia*): The Yellow Warbler occurs sparsely across most of the state in suitable habitat usually near lakes, ponds, and streams, especially where large willow (*Salix sp.*) trees are present. Despite an abundance of this habitat in West Tennessee, they are rather local and less common than might be expected. They have occurred annually on Mud Island in Shelby County, and a nest was found 31 May 1981 (Nicholson 1982). Nicholson (1982) noted one to three warblers were usually recorded on Paw Paw and Tiptonville Breeding Bird Survey routes from 1972 to 1981. Eight Yellow Warblers were recorded 21-24 June 1984 at Reelfoot Lake (Pitts 1985). Alsop (1976) reported eight individuals on the Benton County Foray, but none were found by the Mayfields on lower Big Sandy River in 1987 in willow habitat at the river's confluence with Kentucky Lake. On the Decatur County foray no Yellow Warblers were found despite the presence of good habitat along the Beech River (Nicholson 1980). The Yellow Warbler is considered uncommon in Middle Tennessee, but it is found locally in the Nashville area and in Cheatham, Hickman, Lewis, Wayne, and Lawrence Counties. The Mayfields found three at Lincoln Lake in Lincoln County in 1989. A Yellow Warbler was found in White County (Bierly 1982), and one was found on the Caney Fork River in Smith County in 1977 (G. Mayfield pers. obs.). Yellow Warblers are uncommon on the Cumber-

-land Plateau. Although now uncommon, they were formally common in orchards and groves, and along streams and lakes up to 1915 m (3000 ft) from Marion County northeast to Sullivan County on the edge of the mountains in the East Tennessee valley.

Chestnut-sided Warbler (*Dendroica pensylvanica*): In all the higher mountains along the North Carolina state line the Chestnut-sided Warbler is common and easily found. Until 1994 this species was thought to nest in large numbers only above 980 m (3000 ft) in the high East Tennessee mountains, the Cumberland Mountains, and in a few locations at about 655 m (2000 ft) on the Cumberland Plateau. A few singing males are reported annually on the plateau in Grundy County and around Chattanooga (Dubke pers. comm.). Alsop (1971) reported 89 warblers in Campbell County; George Mayfield and Daniel Jacobson (pers. obs.) found Chestnut-sided Warblers at higher altitudes of Monroe County in 1980 (G. Mayfield and D. Jacobson pers. obs.), and Mark Mayfield found them in 1983 in Polk County. In 1993, however, Richard Connors (Ford and Connors 1993) and others of the Nashville TOS found several singing males in typical, open, brushy habitat in the Cheatham Wildlife Management Area at about 275 m (900 ft), and a nest was found there in 1994 (Connors pers. obs.). Therefore, this warbler may be expanding its range and altitudinal distribution in Tennessee.

Magnolia Warbler (*Dendroica magnolia*): The Magnolia Warbler has been extending its breeding range southward from northern West Virginia to Mt. Rogers in Virginia in recent decades. No hard evidence of nesting in Tennessee had been discovered prior to 1989. However, since the summer of 1989, Alsop, Mayfield and Nagel reported singing males as regular on Unaka Mountain. (Knight 1994). During Rad Mayfield's (1995) master's thesis research on Unaka Mountain, he did not discover any physical evidence of nesting, though he heard 25-30 males singing on territory in the area throughout the breeding season. The most positive evidence of nesting comes from banding in the area during May 1992 and June 1993. In May 1992 four males and one female (all mature) were banded on Stamping Ground Ridge (Unicoi County). The female was noted to have a brood patch. The following June a banded male, almost certainly one of those recently banded there, was observed by Mayfield in the same area. In June 1993 at Stamping Ground Ridge, one of the males banded the previous year was recaptured and another male was banded.

Black-throated Blue Warbler (*Dendroica caerulescens*): The Black-throated Blue has long been known as common in the high mountains of East Tennessee near the North Carolina state line at altitudes from 960 to 1980 m (2500 to 6500 ft). Surprisingly, a nest was found in Grundy County by Ganier (1923) at 610 m (2000 ft), far lower and further southwest than any other known nesting site. As reported by Nicholson (1987), several nests were found during the period from 1983 to 1986 at around 915 m (3000 ft) at Frozen Head State Park. Second to the Tennessee Warbler, the Mayfields found this to be the most common species, usually near 100 individuals, banded annually in September on Big Bald Mountain.. Some of these are of the Southern Appalachian Mountain race of this species which was formerly named Cairn's Warbler (*D. caerulescens cairnsi*).

Black-throated Green Warbler (*Dendroica virens*): The Black-throated Green Warbler may be found in breeding season anywhere in Tennessee where hemlock (*Tsuga* sp.) occur. Therefore, it is not found in west and Middle Tennessee. It apparently

breeds in northern Alabama just south of Tennessee, and it is found in the gulfs of the Cumberland Plateau in such areas as Fiery Gizzard, Savage Gulf State Natural Area, and Fall Creek Falls State Park (Dubke and Dubke 1977). It is also found in Putnam and Fentress Counties and eastward from there, almost always in hemlocks, to the North Carolina state line and north to Shady Valley in Johnson County. This is the only warbler found to nest regularly (in suitable habitat) at all altitudes in the Great Smoky Mountains National Park.

Blackburnian Warbler (*Dendroica fusca*): Although there are occasional late May records of the Blackburnian Warbler in the Nashville area, Chris Sloan and George Mayfield heard a singing male in Cheatham Wildlife Management Area on 8 June 1995; there is no evidence of nesting Blackburnian Warblers west of the Cumberland Plateau. One nest was found by Mark Wagner in Fall Creek Falls State Park on 16 June 1970 (Parmer 1970); the only such record so far southwest of the usual range at a much lower altitude. Nicholson (1987) observed nesting activity at Frozen Head State Park at 820 m (2700 ft). Campbell and Howell (1972) heard and saw a singing male on Cross Mountain at 650 m (2140 ft) in Campbell County on 13 June 1971 and heard one again at the same location on 19 June 1971. Dan Jacobson and George Mayfield found this species on the high mountain ridge above Stratton Meadows in Monroe County near the North Carolina state line in 1980, and George Mayfield and Mark Mayfield heard four singing males there in 1989. Blackburnian Warblers can be heard regularly in the tall white pines (*Pinus strobus*) at the picnic ground in Spivey Gap in North Carolina, about 1.2 mile east of the Tennessee/North Carolina state line. Singing males have been heard regularly in past years high in the spruce (*Picea*)-fir (*Abies*) forests of the Great Smoky Mountain National Park above 1525 m (5000 ft). Possibly because of the deterioration of the spruce-fir forest on Roan Mountain, this species has not been found there recently.

Yellow-throated Warbler (*Dendroica dominica*): The Yellow-throated Warbler is widely distributed in Tennessee below 915 m (3000 ft) in large cypress (*Taxodium distichum*) in West Tennessee and mature sycamore (*Platanus occidentalis*) in Middle Tennessee. It is also found in pine forests in the Cumberland Plateau and East Tennessee. The Yellow-throated Warbler is divided into two races: *D. d. albilora* west of the Appalachians in the Mississippi Valley, and *D. d. dominica* with yellow lores, usually found in pines from the mountains eastward. Both of these races appear to overlap in the Cumberland Plateau and eastward where both streamside birds and those dwelling in pine forests are found. These birds are uncommon in the East Tennessee Valley and mountains; they are only rarely seen up to 915 m (3000 ft) in northeastern Tennessee.

Pine Warbler (*Dendroica pinus*): As the name implies the Pine Warbler breeds in pine forests and mixed pine/hardwoods usually of 50 acres or more in area. In mixed pine/hardwoods singing birds usually remain in pine trees. In West Tennessee the Pine Warbler is found mostly south of I-40, especially where loblolly pine (*Pinus taeda*) is common. This warbler has long been found at Craggie Hope (Cheatham County) on bluffs above Turnbull Creek in naturally occurring Virginia (*Pinus virginiana*) and shortleaf (*Pinus echinata*) pines, and it is occasionally found in Middle Tennessee in small patchy, isolated, scattered pine habitats. The Pine Warbler is now found there in loblolly pine plantations as well. Knight (1994) states that it is fairly common across the Cumberland Plateau and on pine-covered ridges in east

-ern and northeastern Tennessee below about 1070 m (3500 ft).

Prairie Warbler (*Dendroica discolor*): The western edge of the breeding range of the Prairie Warbler appears to be on a line from Saulsbury in Hardeman County to Weakley County (Pitts 1982) as we have been unable to find it west of this line. From there eastward it is found to be fairly common in typical, open, brushy, weedy habitat, especially in the cedar glades of the Central Basin where it is most common. The range extends across the Cumberland Plateau to East Tennessee where it is uncommon up to an altitude of about 1070 m (3500 ft). Although it is not easy to find in northeastern Tennessee, it is regularly present in the best habitat. In Shady Valley it has been found in only one location on informal forays of the 1960's (W. Coffey pers. comm.).

Cerulean Warbler (*Dendroica cerulea*): Though once a fairly common bird during nesting season at Reelfoot Lake, the Cerulean Warbler numbers have greatly decreased and only five were found in June 1984 (Pitts 1985), and four were found by the Mayfields in June 1993. It is still found in small numbers in Lauderdale County (Coffey 1976) in Meeman-Shelby Forest State Park and along the Hatchie River from McNairy County to the Hatchie National Wildlife Refuge in Haywood County (Nicholson 1984). The Mayfields reported a Cerulean Warbler in Decatur County in 1978, which was not published, and eight were reported on the Benton County foray (Alsop 1976). In the Western Highland Rim they are occasionally present in large woodlands and adjoining riparian woods. The Mayfields have consistently found a few in Lewis and Hickman Counties, and Cerulean Warblers are also found north and south of there at Sycamore Creek (Cheatham County) and in Wayne and Lawrence Counties. They are considered fairly common each year in Percy Warner Park southwest of Nashville (Vogt pers. comm.). One bird was heard on Elk River Divide in Giles County by the Mayfields in June 1975, but they are mostly absent from the Central Basin, probably because of the loss of large tracts of forests.

In the last 20 years the Mayfields have been unable to find a single bird in Lincoln County during several visits to the remnant forest habitat, and none was found during the atlasing effort in 1989. A few have been found in Cumberland and Bledsoe Counties in recent years, and the Mayfields found one bird in each of Smith, Cannon, and Jackson Counties plus several in Overton County. Harry Yeatman (pers. comm.) reports them as rare but as regular summer resident birds in the Monteagle area. He found a nest near Sewanee in 1991. Six were found on the Grundy County foray (Dubke and Dubke 1977). A few Cerulean Warblers are regularly found in the Tennessee River Gorge below Chattanooga. Nicholson (1987) reported them as fairly common in the Cumberland Mountains especially at Frozen Head Park State Park and 69 were listed on the Campbell County foray (Alsop 1971). Despite islands of good forest habitat in the valleys and ridges of east Tennessee, Cerulean Warblers are now mostly absent from this area where historically they were once present. They are rare to absent in the mountains of East Tennessee. The authors believe there has been a noticeable decline of this species over the last three decades throughout the state, possibly because of the loss of large unbroken tracts of hardwood forests. For this reason, clear-cutting of timber for chip mills is greatly feared as a threat to this and other woodland warblers.

Black-and-white Warbler (*Mniotilta varia*): The Black-and-white Warbler is widely distributed wherever large tracts of mature hardwood forests are found. It is sparsely

and uncommonly found in remnant forested tracts in heavily-tilled West Tennessee, but it is present in places like Meeman-Shelby Forest State Park, Chickasaw State Forest, and Natchez Trace State Forest. It is also uncommon to fairly common across Middle Tennessee in similar habitat. It is more common on the Cumberland Plateau and most common in the mountains of East Tennessee where hardwood forests abound. In 1995 on Clinch Mountain, the Mayfields found it to be fairly common. This warbler may be under-reported in Middle and West Tennessee since its breeding there is earlier than most warblers and its singing decreases rapidly by early summer when most breeding bird censuses take place.

American Redstart (*Setophaga ruticilla*): The American Redstart is common in southwestern Tennessee, especially in the swampy riparian woodlands. It is uncommon along the wooded streams of the Western Highland Rim from Cheatham County to Lawrence County, and it is virtually absent from the Central Basin. It has become much less common in northwestern Tennessee in past years, and only two were found at Reelfoot in 1984 (Pitts 1985). Canoe forays by the Mayfields did not find it on Lower Big Sandy River, Lower Buffalo River, nor Sycamore Creek, and it is rarely found on the Lower Harpeth River, Turnbull Creek, and Upper Buffalo River. It is found regularly in small numbers on Lick Creek (Hickman County) and Swan Creek (Lewis County). It was not found on any of several canoe trips on the Elk and Duck Rivers in recent years. A few are regularly found in the Tennessee River Gorge (Hamilton County), and a few are widely scattered across the Cumberland Plateau. The Mayfields recently have found the American Redstart in Jackson and Overton Counties, and it was observed in Cumberland and Bledsoe Counties (Dubke and Vogt pers. comm.). There are few summer records from the East Tennessee Valley, and this species is rarely found in the mountains of East Tennessee although increasing in numbers in the northeast.

Prothonotary Warbler (*Protonotaria citrea*): The Prothonotary Warbler is always found near water; it is especially fond of the swampy bottoms and sluggish streams of West Tennessee, where it is common. It is also fairly common along streams in the Central Basin and both the Eastern and Western Highland Rim. It is rare to absent on high altitude Cumberland Plateau streams, but it is found in the adjacent gorges at altitudes below 460 m (1500 ft). It is not found on the Obed and Clear Creek Rivers, but is found on the Emory River above Oakdale (Morgan County) at about 245 m (800 ft). It is fairly common in the East Tennessee Valley but uncommon in northeastern Tennessee. The Mayfields did not find it while canoeing on the Watauga River from Elizabethton until reaching Boone Lake near Austin Springs where a pair was seen feeding young. The Mayfields have seen it on the French Broad River above Newport (Cocke County). Campbell reported a singing male at Cove Lake State Park (Campbell County) and another singing male below Norris Dam on the Clinch River.

Worm-eating Warbler (*Helmitheros vermivorus*): The Worm-eating Warbler is widely distributed, but considered uncommon throughout most of Tennessee, wherever large stands of hardwoods are found. Therefore, it is somewhat rare in West Tennessee and in the Central Basin. It is more easily found in the Highland Rim, and it is fairly common across the Cumberland Plateau and in the mountains of East Tennessee up to about 1220 m (4000 ft).

Swainson's Warbler (*Limnothlypis swainsonii*): When TOS was founded in 1915

the Swainson's Warbler was known only as an inhabitant of West Tennessee river swamps, particularly in thickets of cane (*Arundinaria gigantea*). However, in 1932 a nest was found in Sullivan Co. in northeastern Tennessee by Fred M. Jones (Knight 1994). Ganier and Clebsch later found a nest in Mark's Slough off the Cumberland River in Montgomery County plus another nest in the nearby Chapmansboro Swamp (Ganier 1940). These observations seemed to indicate the existence of two groups of Swainson's Warblers. There is a swamp-nesting group in West Tennessee that extends to the Cumberland River in Montgomery and Cheatham Counties that seeks wet cane thickets and sometimes blackberry (*Rubus sp.*) patches; the other group nests in rhododendron (*Rhododendron sp.*) thickets in East Tennessee mountains and parts of the Cumberland Plateau and mountains, especially Fentress, Morgan, and Campbell Counties. In July 1971, Campbell and Howell (1972) heard eight singing males on Jellico Mountain in Campbell County at altitudes from 320 m (1050 ft) to 410 m (1350 ft). During the 1970s George, Rad, and Mark Mayfield, canoeing on the Clear Fork River, Obed River, and Clear Creek in Fentress and Morgan Counties found occasional Swainson's Warblers on Clear Creek near Lily Bridge and on Clear Fork River between Peters and Brewster Bridges. Two Swainson's Warblers were found below Peter's Bridge during the Fentress County foray (Nicholson 1981). The Mayfields failed to locate any singing males during atlasng efforts between Gatewood and Brewster Bridge near Rugby in 1991, but later, in 1995, nine males were heard (W. Jernigan and G. Mayfield pers. obs.).

In the late 1980s Yeatman (pers. comm.) heard a singing Swainson's along the old railroad cut southwest of Sewanee and one was heard at "Reflection Riding" at the foot of Lookout Mountain near Chattanooga (K. Dubke and L. Dubke pers. comm.). However, these are the only recent ones found at the southern end of the Cumberland Plateau. In West Tennessee a few singing males are found regularly in Meeman-Shelby Forest State Park. Tucker (1941) found a nest in Overton Park on 9 May 1941. This nest and other early records are discussed by Coffey (1941). This species can be found in small numbers each year on the Walnut Log Road at Reelfoot Lake. It has been found regularly on recent float trips on the Hatchie River from McNairy to Haywood counties by Bierly and Coffey (pers. comm.) and by the Mayfields in 1981 on the McNairy County foray. As early as 1902 a nest was collected one mile south of Athens by Richard Gettys. This only became known when Ijams and Hofferbert (1934) examined his collection long after Gettys' death. In the recent past these birds have been found in Cades Cove and near the visitor center of the Great Smoky Mountains National Park. Through 1996 five to seven males were heard regularly during breeding season along Beaverdam Creek near Backbone Rock in Johnson County. This species was found in 1941 by Albert Hyder (1941) and Jim Tanner at the entrance to Rock Creek Park (Unicoi County) where it was found again in 1995 by Knight (pers. comm.). Rad and Mark Mayfield also found four singing males on the old road between Limestone Cove and Rock Creek Park in June 1995.

Ovenbird (*Seiurus auricapillus*): The Ovenbird is not found breeding in the flatlands of far western Tennessee, but it is found along the hills of the western divide of the Tennessee River and Western Highland Rim where it is uncommon near the ground in large hardwood forests. It is almost absent from the Central Basin and uncommon on the eastern Highland Rim. It then becomes common in the Cumberland Plateau and in the East Tennessee mountains. It is most numerous

in northeastern Tennessee up to about 1525 m (5000 ft).

Louisiana Waterthrush (*Seiurus motacilla*): The Louisiana Waterthrush is widely distributed. It nests always near water in forests especially along low bluffs of running streams. It is less common in far West Tennessee than in the Western Highland Rim, and it is less common in the Central Basin than in the Eastern Highland Rim. It is fairly common in the Cumberland Plateau and in the mountains of East Tennessee up to about 1070 m (3500 ft).

Kentucky Warbler (*Oporornis formosus*): The Kentucky Warbler is found fairly commonly across the state in the dense understory of hardwood forest and in woodland edges up to about 915 m (3000 ft).

Common Yellowthroat (*Geothlypis trichas*): The Common Yellowthroat is without a doubt the most widely distributed warbler nesting in Tennessee. It is common in bushes, tall weeds, and brushy forest edges, and it is found from the Mississippi River to the North Carolina state line up to 1830 m (6000 ft).

Hooded Warbler (*Wilsonia citrina*): The Hooded Warbler is widely distributed in Tennessee from the understory of bottomland forests in the west, to the mountains of East Tennessee. However, it is much more common and easily found from the Cumberland Plateau eastward. Though it lives in the shrubs of the understory, it seems to require large unbroken forests overhead for its nesting grounds. It is rather uncommon in West Tennessee and difficult to find in the Central Basin except at Radnor Lake and Warner Parks.

Canada Warbler (*Wilsonia canadensis*): The Canada Warbler does not nest in West or Middle Tennessee. For many decades it has been heard regularly during breeding season in small numbers in the higher mountains of East Tennessee near the state line. It was found in 1980 in Monroe County (Mayfield and Jacobson pers. obs.) and Polk County by Rad Mayfield in 1983, and it is now found in the Great Smoky Mountains National Park from near the Chimneys parking area at about 1000 m (3280 ft) to the highest peaks at 1980 m (6500 ft) frequently in rhododendron thickets (Stupka 1963, Alsop 1991). It is found regularly, but uncommonly, on the slopes of Big Bald and Unaka Mountains and more commonly on Roan Mountain and on the ridges encircling Shady Valley. Two were found in Campbell County (Alsop 1971), and more recently it has been found at 915 m (3000 ft) in the Cumberland Mountains at Frozen Head State Park in 1985 and 1986 (Nicholson 1987).

Yellow-breasted Chat (*Icteria virens*): The Yellow-breasted Chat is widely distributed throughout Tennessee, often occurring within the same habitat as the Common Yellowthroat. It is less numerous than the Common Yellowthroat and not found as high in the mountains, only to about 1070 m (3500 ft). It is fairly common in all these areas in open, brushy habitat.

SUMMARY

When we first began to write this article two decades ago we could have summarized by stating that since 1930, when George R. Mayfield, Sr., wrote a similar article for the first volume of *The Migrant*, entitled "Warblers of Tennessee," the same 24 species listed by him continue to nest in Tennessee. However, the discovery of Magnolia Warblers on Unaka Mountain during breeding season in 1989 has increased the number to 25 (Knight 1994). Another possible nesting species came close to Tennessee in the late 1980s when for two years a singing male Mourning

Warbler (*Oporornis philadelphia*) was heard in typical habitat at an overlook on the Blue Ridge Parkway in the North Carolina area of the Great Smoky Mountains National Park (Dubke pers. comm.). This species could not be found by the Mayfields in 1989 and has since been absent. George Hall (1983) lists five additional warbler species nesting in West Virginia. These five include Magnolia Warbler, recently discovered here, the Mourning Warbler, the Northern Waterthrush (*Seiurus aurocapillus*), the Nashville Warbler (*Vermivora ruficapilla*), and the Yellow-rumped Warbler (*Dendroica coronata*), which he confidently predicts will be our next species nesting in Tennessee. For now, we conclude there are 25 species of warblers that nest in Tennessee.

ACKNOWLEDGMENTS

The authors wish to express their appreciation to the members of TOS who provided information about warblers during the nesting season in their respective regions of the state: Fred Alsop, Michael Bierly, Wallace Coffey, Richard Connors, Ken Dubke, Lil Dubke, Katherine Goodpasture (deceased), Paul Hamel, Lee Herndon (deceased), Daniel Jacobson, Rick Knight, Ruth Luckado, Rad Mayfield, Charles Nicholson, David Pitts, Jim Tanner (deceased), Ann Tarbell, David Vogt, Harry Yeatman, Gary Wallace, and Martha Waldron.

DEDICATION

We dedicate this article to the memory of four individuals who have been very important in our lives: The first is our co-author, Ben B. Coffey, Jr. (deceased), a fellow of the American Ornithologists Union, whose birding exploits in west Tennessee, publications, and editorship of *The Migrant* are known to all TOS members. The second is George R. Mayfield, Sr., a founder and first secretary of the TOS (1915), whose appreciation and love of warblers may even have exceeded that of his son. The third is Lillie Hasslock Mayfield, first female member of TOS in 1916 and second secretary of TOS. The fourth is Carlos Campbell, Jim Campbell's father, who served as secretary of the Great Smoky Mountains Conservation Association from the late 1920s until his death in 1978, and as such, was instrumental in the formation and later support of the Great Smoky Mountains National Park.

We would also like to acknowledge the encouragement we have received from Lula Coffey, who with her husband, Ben, are the only couple who have both served as presidents of the TOS.

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SUMMER OBSERVATIONS OF CHESTNUT-SIDED WARBLERS IN CHEATHAM COUNTY, TENNESSEE

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Chestnut-sided Warblers (*Dendroica pensylvanica*) may be experiencing a southern range extension. For example, new nesting season records include southern Indiana and southern Illinois (Bruce Peterjohn in Rodewald 1993) as well as positive nesting evidence in Arkansas in 1994 (Rodewald pers. comm.). The known Tennessee breeding range is restricted to the Appalachians and Cumberland Mountains (see Robinson 1990). However, Dubke (1992) described one recent nest in Sequatchie County and summarized other recent breeding season records in south-east Tennessee.

Thirteen Chestnut-sided Warblers were recorded consistently from 3 June to 6 July 1994 at Cheatham Wildlife Management Area, Cheatham County, Tennessee. These birds were observed during a census of breeding birds for the Partners in Flight initiative and during other subsequent field work. Observers visited the area about four mornings per week during June and early July. Although no positive breeding evidence was observed, these observations were much past the normal spring migration window for middle Tennessee.

Chestnut-sided Warblers were observed primarily in forest regeneration areas. These habitats were forest clearcuts from about three to five years old. Vegetation ranged from 1 to 7 m (average 3 to 4 m) in height and was composed of blackberry and scattered small trees. Other Chestnut-sided Warblers occurred next to access roads close to clearcuts. Typical blackberry bramble vegetation was the primary habitat. Individuals were observed at an elevation of 213 m (700 feet).

Males were often first observed singing from an exposed perch. The perch was typically an exposed snag that had been left during logging operations and was approximately 10 m in height, well above the surrounding vegetation. At least 13 different individuals were observed; the maximum number of individuals observed in one day was five. Four singing males were detected during one field trip with eight Nashville TOS members on 25 June 1994. Some warblers were observed singing from a regular perch and patrolling an area around a territory.

One male responded aggressively to tape playback on 13 June 1994. At another location, two males were observed in apparent territory defense and aggressive confrontation on 19 June 1994 (Jan Shaw pers. obs.). No females were positively identified, although Connors observed one lightly colored individual that was silent and present in a singing male territory without confrontation. However, Harrison (1984) and others have cautioned about the difficulty of distinguishing between the sexes.

The number and dates of observation for the Cheatham group of birds lead us to

believe that a new breeding colony is being attempted by pioneering individuals. Previously, the latest spring date in middle Tennessee was 11 June 1975 (Williams 1975). In 1993, four Chestnut-sided Warblers were observed 29 and 30 May during surveys at Cheatham Wildlife Management Area. Although these individuals were assumed to be late migrants, it is possible that individuals spent the summer at this location. TOS observers will attempt to confirm this as a breeding species at this site in future years.

The observations of Chestnut-sided Warblers at Cheatham Wildlife Management Area apparently represent the first nesting season records for middle Tennessee and the lowest elevation of a possible breeding population at this latitude.

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MINUTES OF SPRING 1996 MEETING

The Spring meeting of the Tennessee Ornithological Society (TOS) was held on 10-11 May 1996 at the Admiralty Inn in Millington, Tennessee, with 90 paid registrations. The Memphis chapter served as hosts. Field trips were taken on the mornings of 11 and 12 May to Shelby Forest, Mustin Bottoms (Eagle Lake) and the Pits areas, led by Dick Preston, Gerald Papachristou, Virginia Reynolds, Martha Waldron, and Van Harris.

In the absence of President James Brooks, the meeting was called to order by Marcia Davis, East Tennessee Vice-President. Minutes of the Fall 1995 meeting were approved as written. Ron Hoff reported on the mid-winter meeting at Manchester.

MIDDLE TENNESSEE VICE-PRESIDENT: Richard Connors thanked Nashville chapter members Jan Shaw and Hazel Cassel for maintaining their telephone Bird Line.

WEST TENNESSEE VICE-PRESIDENT: Mark Greene commended the Memphis chapter for the well-planned and well-presented Spring meeting.

EAST TENNESSEE VICE-PRESIDENT: Marcia Davis reported that sticks have already been placed by osprey on the new platform built by Knoxville chapter members on Fort Loudoun Lake.

DIRECTORS-AT-LARGE: No report.

TREASURER'S REPORT: As filed in detail with these minutes, David Trently presented the report which included:

— **INCOME** was \$26,201.38, including \$9,464 in dues, \$10,742.38 from interest, \$645 from library subscriptions, and \$5,350 from miscellaneous.

BREEDING BIRD ATLAS: It was reported that the contract had been finalized with the University of Tennessee Press for publication of the atlas. There will be an 80% (UT) - 20% (TOS) royalty split. Royalties are 5% of sales. The Atlas is now scheduled to be released in the Fall of 1997. Bob Hatcher mentioned that the Tennessee Wildlife Resources Agency will extend its contract with TOS to provide some of the funding for the publication. Otherwise, this contract will expire if the billing is not made before 30 June 1996.

BIRD RECORDS COMMITTEE: No report.

CONSERVATION COMMITTEE: Ken Dubke reported on the TVA Shoreline Management Plan and the new "Teaming with Wildlife" initiative. Bob Hatcher further reported on the progress of the Wildlife Diversity Funding initiative which is being considered for passage by Congress. Hatcher also reported that the sale of the Wildlife license plates has exceeded original predictions by 2.5.

George Mayfield expressed concern about the weakening of the various Environmental Protection Acts and the disappearance of forest in Tennessee due to the chip mill industry. Bob Ford reported that the rate of forest harvest is now exceeding forest growth and that soon there is going to be a meeting of the Governor's Council on Forestry to address these concerns.

TECHNOLOGY COMMITTEE: From James Brooks' letter, Mark Greene reported that Alice Kirby, Technology Committee Chair, has plans to move to Virginia, but

her arrangements at UT-Knoxville will remain in place so that TOS can continue its web page without cost.

COLLATERAL MATERIALS COMMITTEE: Mark Greene reported for Bill Bridgforth that use of an earlier logo patch will be resumed. Fred Alsop will update the artwork and will work directly with the patch manufacturer to assure a satisfactory product.

THE WARBLER: Theresa Irion gave a brief report and noted that the next deadline is 30 June 1996.

PARTNERS IN FLIGHT: Bob Ford reported that Tennessee has tentatively set up a partnership with the Dominican Republic to work toward preservation of migratory bird habitats there. Mike Roedel, compiler, reported that past point counts are being slowly logged into the TWRA computer.

TOS HISTORIAN: Bill Fowler reported that a history of the TOS was sent to be published in *The Migrant* several years ago. He has more material that he will put together.

ALTERNATE FUNDING: Members appointed by President James Brooks are: Marcia Davis, head; Bob Hatcher, Dan Robbins, and Polly Rooker. Two more members from West Tennessee need to be named. A motion to name the group "Project Funding Committee" was unanimously approved. A motion that the board of directors nominate the remaining two members also passed, and the board chose Forrest Priddy and George Payne. A motion was also passed that the committee resolve within itself the method of two-year rotation of members.

OLD BUSINESS: Marcia Davis read a letter from Laura Mitchell to James Brooks requesting funding for the continuation of the TOS support for the BREEDING BIRD CENSUS reports. A total of \$400 was requested but it was explained that it may be possible that matching grants may be available for \$200. A motion was made and seconded that \$400 be given for the project, but was amended to read that the TOS offer \$400 for the program but request that matching funds for \$200 be pursued. Discussion included the need for any future requests for funding to be channeled through the new PROJECT FUNDING COMMITTEE. The amendment passed and the original motion as amended passed.

NEW BUSINESS: Marcia Davis announced that Wallace Coffey has resigned as Editor of *THE MIGRANT*. Discussion was held about the procedure for nominating a new editor. The board of directors will meet in special session to fill the position. Dave Trently announced that a SUMMER MEETING will be at Reelfoot Lake from 16-18 August 1996. The FALL MEETING will be a joint meeting with the Mississippi Ornithological Society; details will be forthcoming.

Discussion was held on the need to review the By-Laws and Constitution. A motion was made to accept the proposal of Virginia Reynolds to review the By-Laws and Constitution. A review committee was appointed consisting of Dan Robbins, Ron Hoff, Virginia Reynolds and Susan McWhirter, president-elect. A motion was made and seconded to accept the appointment of these members to the review committee.

A motion was also made that the TOS award a gold medal to George Woodring, honoring his service as first editor of *The Migrant*. The motion passed.

Another motion was made that the amount of \$894.05 be added to the Atlas fund so that the funding of \$23,000 will be in place and available to pay for the publication of the Atlas.

TOS ANNUAL BUSINESS MEETING

The Annual Business Meeting of the TOS was held at the Admiralty Inn in Millington, Tennessee following a banquet.

Vice-President Marcia Davis summarized the afternoon Directors' meeting. David Trently summarized the Treasurer's Report as given at the Directors' meeting. The recommendation by the Executive Board of Susan McWhirter for President of TOS was accepted unanimously. Distinguished Service Awards were presented to Carolyn Bullock of the Memphis Chapter and Jim Campbell of the Knoxville Chapter. Morris Williams announced that the TOS gold medal award will be presented to George Woodring, honoring his service as first editor of *The Migrant*.

Lula Coffey presented the speaker, Brent Funderburk, professor and interim head of the Mississippi State University Department of Art. He presented a video production highlighting the work of Walter Inglis Anderson, artist, naturalist and writer.

Respectfully submitted,

HARRIETTE L. SPIEGEL, Secretary

THE SEASON

ROBERT P. FORD, Editor



SPRING: 1 MARCH - 31 MAY 1996

WESTERN COASTAL PLAIN REGION: *Loon-Goldeneye:* **Common Loon:** 17 Apr (1) Champy's Pocket, Reelfoot L S P (WGC); 21 Apr (2) Mississippi River mile 755 (MGW). **Horned Grebe:** 26 Mar (1) Whites Lake (DDP). **Eared Grebe:** 17/30 Mar (1) Whites Lake (MAG, WGC). **American White Pelican:** 16 Mar (20) Eagle Lake WMA (MTOS); 16/17 Mar (74 max) Everett Lake & (14) Whites Lake (WGC), early west TN and Shelby Co.; 30 Mar (18) Reelfoot L., Obion Co. (MAG). **American Bittern:** 23 Apr (1) Hatchie NWR (CHB, VBR, LVZ). **Least Bittern:** 11 May (1) Allen Steam Plant (MLG). **Great Egret:** 3 Mar (1) TWRA Watershed, Lake #1, Obion Co. (WGC), early TN. **Little Blue Heron:** 17 Mar (1) Reelfoot L., Lake Co. (WGC), early TN. **Black-crowned Night-Heron:** 16 Apr (1) Eagle Lake WMA (AJT); 4/8 May (2) Allen Steam Plant (MAG, JRW). **Yellow-crowned Night-Heron:** 25 Mar (1) Gooch WMA (RDH, DoM); 15-20 Apr (1) Hatchie NWR (CHB, HBD, MAG, SLL, VBR); 9 Apr (1 ad) Gray's Camp, Lake Co. (WGC); 8 May (1) Walnut Log (MAG, JRW); 11 May (1) Allen Steam Plant (TOS). **Tundra Swan:** 1 Mar (2/9) two locations on Forked Deer River, Lauderdale Co. (BJC). **Greater White-fronted Geese** were reported in all river counties; Long Point hosted about 1000 during the first two weeks of March. **Snow Geese** were reported also with 5000 recorded in Black Bayou (WGC). **Ross' Goose:** 30 Mar (1) Black Bayou (MAG, JRW). **CINNAMON TEAL:** 17/26 Mar-5 Apr (1 m) Whites Lake/I55 and MS River Bridge (*WGC, MAG, DDP). **SURF SCOTER:** 14 Apr (4 m, 3 f) Hillville Unit, Hatchie NWR (GHS), first for Haywood Co. **Common Goldeneye:** 16/29 Mar (1) Eagle Lake WMA (VBR, MTOS).

Osprey-Coot: **Osprey:** Four nests with young observed at Reelfoot L. 12 Mar-25 May, Lake and Obion Cos. (WGC); 29 Mar/20 Apr (2/1) Hatchie NWR (CHB, MAG, HBD, SSL, VBR, GHS, MGW); 11 May (1) Eagle Lake WMA (TOS). **Mississippi Kite:** 8 Mar (1) n Memphis (GLK); 16 May (1) Fayette Co. (SNM, VBR, MGW), first for Fayette Co. Reports from Hatchie NWR, Eagle Lake, and all river counties indicate the success of the hacking project by the Memphis Zoo, TWRA and the Kansas Fish and Game. Young birds will be hacked again this year. **Bald Eagle:** 1 Mar (2 im) Chickasaw NWR & (2) Chisolm Lake, Lauderdale Co. (BJC); several active nests at Reelfoot L., 10 May-25 May (nest, 2 yg) Lake Isom, Lake Co. & 9 Apr-25 May (nest, 2 yg, 25 May, yg off nest) Lake #9, TN/KY line, Lake Co. (WGC). **Sharp-shinned Hawk:** 8 Mar (1 ad m) Collierville, Shelby Co. (OKM); 20 Mar (1) e Memphis (SRM); 6/15 Apr (1) Hatchie NWR, 24 Apr (1) Natchez Trace Parkway, Carroll

Co. & 27 Apr (3 max) Shelby Co. (MAG). **Cooper's Hawk**: 6 Mar (1) Fayette Co. (CHB, HBD, SSL); 11 Mar (1) Shelby Farms (VBR); 20 Mar (1) Humboldt Marsh, Gibson Co.; 30 Mar/12 Apr (1) Wolf River WMA (SNM, MGW); 13 Apr (1) Germantown, Shelby Co. (OKM); 12 May (1) Hatchie NWR (TOS). **Broad-winged Hawk**: 29 Mar (1) Eagle Lake WMA (VBR). **Merlin**: 1 Mar (1) Bolivar, Fayette Co. (RLJ); 15 Apr (1) Hatchie NWR (MAG). **Peregrine Falcon**: 19 Apr (1) Eagle Lake WMA (AJT); 12 May (1) Black Bayou (WGC); 17 May (1) downtown Memphis (MGW). **Sora**: 17/21 Mar-8 May (4 max) Whites Lake (WGC); 20 Apr (1) Millington, Shelby Co. (JAF); 8 May (1) TVA pond, Shelby Co. (MAG). **American Coot**: 8 May (5,000+) Black Bayou (MAG).

Plover-Tern: Bi-weekly visits to the EARTH Complex continued with many observers submitting records (CHB, MAG, MLG, WRP, VBR, AJT, TOS, JEW, MGW). Selected species can be found in this report. Additional information concerning the more common species or their numbers can be obtained from the regional compiler. A total of 22 shorebird species were observed at the complex this season. **American Golden-Plover**: Only the higher numbers are in this report, reports from other sites in Shelby and Dyer as early as 12 Mar; 24 Mar/9 Apr (1,000+ /300) fields near Airpark, Reelfoot L. S. P. (WGC, MAG); 6 Apr (214) Eagle Lake WMA (DDP, MTOS). **Black-necked Stilt**: 4 Apr-EOP (19) EARTH Complex; 22/27 Apr (2) Eagle Lake WMA (AJT, WRP). **Greater Yellowlegs**: 16 Mar (12 max) Gibson Co. (MAG); 25 Mar (6) Gooch WMA (RDH, DoM); 29 Mar (2) Eagle Lake WMA (VBR); 20 Apr (10) Hatchie NWR (MAG). **Lesser Yellowlegs**: 3 Mar (1) Long Point (WGC); 3-29 Mar (48 max) Eagle Lake WMA (MTOS, VBR, JEW, MGW); 16 Mar (25) Gibson Co. (MAG); 25 Mar (18) Gooch WMA (RDH, DoM); 27 Mar (15) Phillipy (RDH, DoM); 24 Mar-18 May (250 max) EARTH Complex. **Solitary Sandpiper**: 16 Mar (2) Eagle Lake WMA (MTOS); 10 Apr-18 May (32 max) EARTH Complex; 15/20 Apr (2 max) Hatchie NWR (MAG). **Upland Sandpiper**: 3 May (1) Eagle Lake WMA (AJT); 4 May (6) EARTH Complex. **Western Sandpiper**: 1-27 May (10 max) EARTH Complex. **White-rumped Sandpiper**: 16 May (4) Black Bayou, 25 May (6) Hwy 103 and Gr River Rd, Dyer Co. & 25 May (42+) Island 13 (WGC); 1-27 May (32 max) EARTH Complex. **Pectoral Sandpiper**: 3/16 Mar (4/3) Eagle Lake WMA (MTOS, JEW, MGW); 25 Mar (75) Gooch WMA (RDH, DoM); 24 Mar-27 Apr (228 max) EARTH Complex. **Dunlin**: 11 May (1) EARTH Complex; 16 May (1) Black Bayou, 25 May (3) Dyer Co. & 25 May (1) Island 13 (WGC). **Stilt Sandpiper**: 4 Apr/11 May (15) EARTH Complex. **Short-billed Dowitcher**: 11 May (6) EARTH Complex; 11 May (74) Shelby Farms (MLG), high TN. **Long-billed Dowitcher**: 24 Apr (2) Eagle Lake WMA (VBR); 8 May (1) Hwy 103W and Gr River Rd, Dyer Co. (WGC). **Common Snipe**: 16 Mar (235) Eagle Lake WMA (MTOS); 24 Mar (100) Black Bayou (MAG). **American Woodcock**: 2 Mar (1) Wolf River WMA (MGW). **Wilson's Phalarope**: 16 Apr-4 May (13) EARTH Complex. **Laughing Gull**: 30 May (1 ad) Island 13 (WGC). **Franklin's Gull**: 10 Apr (1) EARTH Complex (VBR, AJT, MGW); 8 May (1) Reelfoot L., Obion Co. (MAG, JRW). **Bonaparte's Gull**: 2-20 Mar (2) Eagle Lake WMA (MTOS); 20 Mar (63) MLK Park (CHB, HBD, BHW, JPM); 24 Mar (1000+) Reelfoot L., Obion/Lake Cos. (MAG); 10 Apr (4) Allen Steam Plant (VBR, AJT, MGW). **Caspian Tern**: 10 Apr-4 May (3) Allen Steam Plant (MAG, VBR, AJT, MGW), early w TN; 25 Apr (1) Eagle Lake WMA (AJT); 8/10 May (3/5 max) Mississippi River and I55, Dyer Co./Levee Rd., Lake Co.; 9 May (1) Samburg & 10 May (1) Hwy 79W, Lake Co. (WGC). **Forster's Tern**: 8 May (3) Reelfoot L., Lake Co. (MAG, JRW); 12

May (2) Hwy 79W, Lake Co. (WGC). **Black Tern:** 16 May (7) Lake Co. (WGC).

Swallow-Vireo: **Tree Swallow:** 24 Mar (500+) Reelfoot L., Lake and Obion Cos. (MAG); 12 May (16) Hatchie NWR (TOS). **Bank Swallow:** 23 Apr/7 May (100/1) Eagle Lake WMA (AJT). **Cliff Swallow:** 7 May (1) Eagle Lake WMA (AJT); 30 May (15+nests) Jct. 155 and Hwy 182W, Dyer Co. (WGC). **Olive-sided Flycatcher:** 11 May (1) Shelby Forest S. P. (George Mayfield, m. ob.). **Least Flycatcher:** 8 May (1) Whites Lake (MAG, JRW); 11/25 May (1) Shelby Forest S. P. (DDP, TOS); 13 May (2) Shelby Farms (CHB, DFP, DDP, VBR). **Willow Flycatcher:** 8 May (1) Kirby Pocket, Obion Co. (MAG, JRW). **Yellow-bellied Flycatcher:** 8 May (1) Walnut Log (MAG, JRW); 13-14 May (1) Shelby Farms (CHB, SNM, DDP, VBR). **Scissor-tailed Flycatcher:** 4 May (1 f) Gadsden, Crockett Co. (MAG), first for Crockett Co. **Fish Crow:** 15 Apr (carrying sticks), 17 Apr (nest about 50' in Loblolly Pine), 20 May (very vocal), 20-21 May (yg off nest) e Memphis (VBR), first reported successful nest in residential area; 20 Apr (5) Hatchie NWR (MAG); 23 May (3) Trenton, Gibson Co. (MAG). **American Pipit:** 24 Mar (150+) muddy fields near Airpark, Reelfoot L. (MAG); reports from Shelby and Dyer Cos. **Solitary Vireo:** 19 Apr (1) Shelby Farms (VBR); 24 Apr (1) Shelby Forest S. P. (DDP); 2/12 May (1) Shelby Farms (WRP, MGW).

Warbler-Grosbeak: **Cape May Warbler:** 8 May (1) Reelfoot L., Lake Co. (MAG, NaM, JRW). **Bay-breasted Warbler:** 24 Apr (1) Shelby Forest S. P. (DDP), early Shelby Co. **Blackpoll Warbler:** 4 May (6) Shelby Farms (JAF, SCF). **Connecticut Warbler:** 7/8 May (1) Walnut Log (MAG, JRW); 11 May (1) Shelby Farms (WRP). **Canada Warbler:** 24/27 Apr (1) Shelby Forest S. P. (DDP). **Indigo Bunting:** There were many reports of buntings feeding below feeders and a few reports of buntings feeding from the hanging feeders from 22 Apr-9 May. **Painted Bunting:** 21 Apr (1 m) Sasser Boat Ramp, Shelby Forest S. P. (RRS, BNG); 27 Apr-EOP (3 max) EARTH Complex (MLG, VBR, MGW); 1 May (1) President's Is. (CHB, SSL, VBR, BHW). **"Spotted Towhee":** 18 Apr (1) Eagle Lake WMA (AJT). **American Tree Sparrow:** 3/21 Mar (2) Whites Lake (WGC); 19 Apr (1) Jackson (AHH, HSH). **Grasshopper Sparrow:** 2/7 May (4) Eagle Lake WMA (AJT); 27 May (12) EARTH Complex (MLG, MGW). **LeConte's Sparrow:** 8 May (1) EARTH Complex (MAG, JRW). **Lark Sparrow:** 13 Apr (2) Shelby Farms (MTOS). **Lincoln's Sparrow:** 16 Apr-7 May (1) Eagle Lake WMA (AJT, VBR, WRP); 27 Apr/8 May (4) Shelby Co. (MAG, AJT, JRW); 13 May (1) Shelby Forest S. P. (CHB, DPB, DDP, VBR). **Swamp Sparrow:** 17 May (1) EARTH Complex (DDP, DFP), late west TN. **Bobolink:** 27 Apr-8 May (100+) EARTH Complex (MAG, AJT, JRW); 1 May (100+) Covington, Tipton Co. (PaS, fide LCC); 5 May (45) President's Is. (CHB, SSL, VBR, BHW); 8 May (15) Lake Co. (WGC); 12 May (7) Hatchie NWR (MTOS); 16 May (225) Dyer Co. (WGC). **YELLOW-HEADED BLACKBIRD:** 20 Mar (1 m) mid Memphis (MaM). **Rusty Blackbird:** 3 Mar/2 Apr (4) Eagle Lake WMA (AJT, JEW, MGW). **Brewer's Blackbird:** 16 Mar/2 Apr (1) Eagle Lake WMA (AJT, MTOS); 18 mid Memphis (GLI). **Baltimore Oriole:** 3 Mar-1 Apr (1 m) e Memphis (CHB). **Purple Finch:** 5/20 Mar (4, 1 banded/2) mid Memphis (LCC, MaH); 7 Mar (2) Shelby Farms (WRP, MGW); 21 Mar/7 Apr (2 max) Germantown, Shelby Co. (WRP); 20 Apr-2 May (1) Munford, Tipton Co. (DDP); 12 Apr (3) Wolf River WMA (SNM, VBR, MGW); 15/23 Apr (1) e Memphis (SNM); 23-2 May (6 max) Jackson (AHH, HSH); 28 Apr (2) e Memphis (JLL). **Pine Siskin:** 26/28 Apr (1) Jackson (AHH, HSH); 3-5 May (1) Munford, Tipton Co. (DDP). **Evening Grosbeak:** 30 Mar-20 Apr (1 m, 5 f) sw Memphis (LCC); 28 Apr (1) Jackson (AHH,

HSH); 31 Mar (10) Gray's Camp, Reelfoot L., Lake Co. (MAG, NaM); 1 May (1) nw Shelby Co. (BeH, fide VaH); 17 May (2 m) Shelby Farms (BTP, FCP).

Locations: See page 81.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38119

EASTERN RIDGE AND VALLEY REGION: Spring weather was variable, as would be expected. March was slightly cooler than normal, with two light snowfalls in the northeast, and early April was cold. The remainder of the period experienced more seasonal temperatures, with some minor fluctuations. Overall it was a wet season, but not much wetter than average. Heavy rains around the Memorial Day weekend caused some flooding in the northeast.

The early coolness delayed some migrants, while others seemed to push on despite it. There were no notably early arrivals. A good movement of warblers came through in early May.

Several rare and unusual birds were found. The region's first Cinnamon Teal, first live White-tailed Kite, and third Varied Thrush provided excitement. Several notable wetland's birds were found in the Chattanooga area. Good shorebird numbers occurred there and in Greene County, but few were found further northeast. Rose-breasted Grosbeaks flooded to feeders to the delight of regional observers. Other interesting accounts follow.

Loon-Heron: **Common Loon:** 8 May (1) Bledsoe Co (Roger Nelson); 21 May (1) Aus Spr (THF), lrs. **Pied-billed Grebe:** 16 May (1) Bra Lev (KAC), lrs. **Horned Grebe:** 6 Apr (18) Boone L (RLK), max. **American White Pelican:** 30 Mar-18 Apr (1) Chick Dam, Hmlt Co (KAC, m.ob.); the lingering individual in the Jhn City-Kpt area suffered a broken wing and was captured for treatment, but the wing could not be saved; a search is underway for a permanent home for the bird. **Double-crested Cormorant:** 14 Apr (150) Hws R area, Meigs Co (KHD, LHD), max; nesting observed again at the Holston Army Ammunition Plant, Hawkins Co, with 30+ birds present (Bill Little). **American Bittern:** 29 Apr (1) Bra Lev (Barbara & Mike McMahon). **Least Bittern:** 22 May (2, plus a nest with 3 eggs) Sugar Creek, Hws R area, Meigs Co (DFV, KAC), nest contained 5 eggs on 24 May. **Great Blue Heron:** nesting again at Holston Army Ammunition Plant, Hawkins Co, with 80+ birds present (Bill Little); 11 Mar (30+ standing on nests) island at Point 12, Cher L, Grainger Co portion (RLK), new site; late Apr (2 pairs with 2 nests) south fork Holston River near Hwy 44 bridge, Sullivan Co (JWC, LCM), first breeding evidence in county, nests later vanished; species continues expanding breeding range upstream within the Tennessee River system. **Great Egret:** 9 Apr (1) Aus Spr (THF); 16-20 Apr (1) Greene Co (ACL, DHM); 17 Apr-2 May (1-5) Chatt area (fide KAC); 9 May, 3 June (1) Aus Spr (RLK, FJA). **Snowy Egret:** 19-27 Apr (1) Bra Lev (DFV, KAC); 27 Apr (1) near Bluff City, Sullivan Co (Richard Lewis). **Little Blue Heron:** 1 May (1) Amn Marsh, Hmlt Co (KAC). **Cattle Egret:** 26 Apr (5) Polk Co (TLR). **Black-crowned Night-Heron:** 7 Apr (2) Greene Co (ACL, DHM); 19 Apr (1) Bra Lev (DFV, KAC); 10+ thru season at Kpt (RLK). **Yellow-crowned Night-Heron:** 7 Apr (5) Hmlt Co (Cynthia Wilkerson); 18-21 Apr (1) Aus Spr (RLK).

Goose-Moorhen: **Greater White-fronted Goose:** 23 Mar (1) Greene Co (JAR, LFR). **Snow Goose:** 23 Mar (1 blue) Greene Co (JAR, LFR). **Blue-winged Teal:** 7 Apr (130) Bra Lev (TLR), max. **CINNAMON TEAL:** 4-14 Mar (1 m) Bra Lev (Barbara

McMahon, m.ob.), first east Tennessee record, only about 6th in state. **Redhead:** 9 Mar (123) Fort Loudoun Lake, Loudoun Co (Ron Hoff, Dollyann Myers). **Greater Scaup:** 7 Mar (5) Boone L (RLK); 14 Mar (1) Lst farm pond (FJA); 31 Mar (2) Kpt (RLK). **Common Goldeneye:** 8 May (1 m) Chick L, Hmlt Co (KAC), lrs. **Hooded Merganser:** 12 May (1 f) Baylor L, Hmlt Co (KAC), lrs. **Red-breasted Merganser:** 6 Apr (40) Aus Spr (RLK), max. **WHITE-TAILED KITE:** 14 Apr (1) Volunteer Army Ammunition Plant, Hmlt Co (LAW), at same site where a wing was found 9 Apr 1995, about 4th or 5th state record. **Cooper's Hawk:** 27 Apr (f at nest) Aus Spr (RLK). **Merlin:** 31 Mar, 6 Apr (1) Gvl (JAR, LFR). **Peregrine Falcon:** 12, 22 Mar (1) Greene Co (ACL, DHM); 20 Mar, 30 Apr (1) Chatt (KAC). **King Rail:** 16 Apr (1 road kill) Volunteer Army Ammunition Plant, Hmlt Co (LAW). **Sora:** 3 Apr-16 May (max 10 on 21 Apr) Bra Lev (KAC, TLR); 27 Apr, 11 May (1) Aus Spr (RLK, Tom McNeil). **Common Moorhen:** 11-16 May (1) Bra Lev (TLR, RJH).

Spring Hawkwatch at Soddy-Daisy High School, Hamilton County
2 Mar-28 Apr (WGH et al.)

Osprey	21	
Bald Eagle	9	
Northern Harrier	11	
Sharp-shinned Hawk	59	
Cooper's Hawk	11	
Red-shouldered Hawk	15	
Broad-winged Hawk	261	*
Red-tailed Hawk	129	
Golden Eagle	1	(16 Mar)
American Kestrel	14	

* (one day max of 135 Broad-wings on 11 Apr)

Shorebirds: **Semipalmated Plover:** 2-28 May (16-4) Bra Lev (KAC); 10-16 May (2-5) Greene Co (ACL, DHM). **Greater Yellowlegs:** 17 Mar-21 Apr (1-7) Aus Spr (RLK); 24 Mar-11 May (1-22) Bra Lev (KAC, TLR); 10-20 Apr, 16 May (1-4) Greene Co (ACL, DHM). **Lesser Yellowlegs:** 24 Mar-16 May (4-18) Bra Lev (KAC, TLR); 20-27 Apr, 16 May (1-7) Greene Co (ACL, DHM); 3 May (10) Aus Spr (RLK). **Solitary Sandpiper:** 24 Mar (1) Aus Spr (RLK), lrs; 27 Mar-12 May (16 max) Bra Lev (KAC, TLR); 13 Apr-16 May (1-8) Greene Co (ACL, DHM). **Spotted Sandpiper:** 20 Apr-10 May (1-5) Greene Co (ACL, DHM); 21 Apr-13 May (1-10) Chatt (KAC, TLR); 21 Apr-21 May, 3 Jun (1-6) Aus Spr (RLK, FJA). **Upland Sandpiper:** 16 Apr-11 May (1) Centre South Riverport, Hmlt co (WGH, LAW). **Semipalmated Sandpiper:** 11-28 May (max 30) Bra Lev (KAC, TLR); 22-25 May (2) Greene Co (ACL, DHM). **Western Sandpiper:** 10-25 May (1) Greene Co (ACL, DHM). **Least Sandpiper:** 27 Apr-7 May (1-9) Lst (RLK); 10-22 May (1-6) Greene Co (ACL, DHM); 2 May (41) Bra Lev (KAC), max. **White-rumped Sandpiper:** 16 May (1) Greene Co (ACL, DHM); 28 May (1) Bra Lev (KAC). **Pectoral Sandpiper:** 24 Mar-27 Apr (1-31) Bra Lev (KAC, TLR); 18-20 Apr (3) Greene Co (ACL, DHM); 7 May (1) Wash Co (RLK), only report there.

Dunlin: 16 May (14) Greene Co (ACL, DHM). **Stilt Sandpiper:** 1 May (1) Bra Lev (RJH). **Common Snipe:** 7 Apr (max 56), 2 May (1) Bra Lev (KAC, TLR).

Gull-Hummingbird: Bonaparte's Gull: 21 Apr (51) Hmlt Co (KAC), max. **Ring-billed Gull:** 11 May (1) Hmlt Co (TLR), lrs. **Herring Gull:** 6 Apr (1) Boone L (RLK), lrs. **Forster's Tern:** 8 May (9) Aus Spr (RLK); 23 May (1) Hmlt Co (DFV, KAC). **Black-billed Cuckoo:** 28 Apr, 5 May (1) Jhn City (RLK). **Barn Owl:** 7 Mar (pair adults each) Gray & Sulphur Springs, Wash Co (DEH); pair regular at Jhn City (FJA et al.); 25 Apr (1) Williams Is, Hmlt Co (DFV, KAC). **Ruby-throated Hummingbird:** 12 Apr (1) Hmlt Co (TLR), ers. **Rufous Hummingbird:** wintering male at Chatt last seen 11 Apr (MLB).

Flycatcher-Vireo: Olive-sided Flycatcher: 16 May (1) Greene Co (ACL, DHM). **Horned Lark:** 7 May (1 singing) Lst (RLK). **Red-breasted Nuthatch:** representative last dates following winter invasion — 19 Apr in Jhn City (JWN), 24 Apr in Greene Co (ACL, DHM), 27 Apr in Hmlt Co (WGH). **Brown Creeper:** 28 Apr (1) Hmlt Co (KAC), lrs. **Carolina Wren:** reduced numbers following cold & extended snowcover of winter — e.g., 44 on Elizabethton Spring Count compared to an average of 113 during 1991-95 (fide RLK). **Sedge Wren:** 26 Apr (1) Volunteer Army Ammunition Plant, Hawkins Co (LAW); 1 May (1) Amn Marsh, Hmlt Co (KAC). **Marsh Wren:** 13 Apr (1) Volunteer Army Ammunition Plant, Hawkins Co (LAW); 21 Apr, 3 & 11 May (1) Aus Spr (RLK). **Eastern Bluebird:** population not depleted by winter's cold & snow — e.g., 105 on Elizabethton Spring Count compared to an average of 85 during 1991-95 (fide RLK). **VARIED THRUSH:** 14-16 Mar (1 m) Oak Ridge, Anderson Co (fide David Trently), 3rd regional & state record. **White-eyed Vireo:** 14 Apr (14) Hmlt Co (TLR, KAC), ers. **Philadelphia Vireo:** 5 May (1) Greene Co (ACL, DHM); 11 May (1) Hmlt Co (TLR).

Warbler-Grosbeak: Brewster's Warbler: 27 Apr (1) Hmlt Co (WGH). **Orange-crowned Warbler:** 14 & 19 Apr (1) Greene Co (ACL, DHM); 21 Apr (2) Hmlt Co (KAC, TLR). **Prothonotary Warbler:** 20 Apr (6) Greene Co (ACL, DHM), good number for northeast Tennessee, where scarce. **Swainson's Warbler:** 13 May (1) Pot House, Marion Co (KAC). **Rose-breasted Grosbeak:** late Apr-mid May, many feeder reports throughout region (m.ob.). **Dickcissel:** 7 May into summer (9+ m, 3+ f) Lst (RLK); 11 May (2) Hmlt Co (RJH, TLR). **Nelson's Sharp-tailed Sparrow:** 11 May (7) Aus Spr (RLK, Tom McNeil), new high count for state. **Swamp Sparrow:** 16 May (1) Bra Lev (KAC, DFV), lrs. **White-throated Sparrow:** 16 May (1) Greene Co (ACL, DHM), lrs. **Bobolink:** 6 May (100+) Hmlt Co (WGH, MLB), max. **Brewer's Blackbird:** 13 Apr (2 f) Hmlt Co (RJH). **Pine Siskin:** 8 May (2) Wash Co (RLK), lrs following modest spring movement. **Evening Grosbeak:** 1 May (5) Greene Co (JBH), lrs.

Locations: See page 81.

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EASTERN MOUNTAIN REGION: Precipitation was above normal for the period. May was very wet with nearly 7 inches of rain. A late cold spell the second week of May affected migration. The exceptional grebe season continued from the winter season. Wallace Coffey and party viewed 4 species of grebes at one time on South Holston Lake on 24 March.

Grebe-Hummingbird: Horned Grebe: 17 Mar (10) Watauga L. (RLK); 24 Mar (3) S.

Hol. L. (JWC, LCM). **Eared Grebe**: 24-30 Mar (4-2) S. Hol. L. (JWC, LCM et al.). **RED-NECKED GREBE**: 24 Mar/2 Apr (1) S. Hol. L. (JWC, LCM et al.). **Double-crested Cormorant**: 27 Mar (6) S. Hol. L. (Mike Jackson); 20 Apr (3) Watauga L. (Bristol Bird Club); 17 Apr (2) S. Hol. L. (RLK). **Great Blue Heron**: 10 Apr (2 nests) South Holston River, e Sullivan Co. (JWC, LCM), first nest for Sullivan Co., nests apparently destroyed by bad weather. **Great Egret**: 6 Apr (1) Chota Waterfowl Refuge, Monroe Co. (DJT); 8 Apr (1) Weaver Pike, Sullivan Co. (RBB, RMC). **Snowy Egret**: 27 Apr (1) South Holston River, Sullivan Co. (RPL). **Cattle Egret**: 15 Apr (1) S. Hol. L. (JWC, LCM). **Green Heron**: 7 Apr (1) S. Hol. L. (JWC, LCM), ers. **Yellow-crowned Night-Heron**: 15 Apr (2) Sycamore Shoals State Park, Carter Co. (GOW). **Northern Pintail**: 6 Apr (1) Chota Waterfowl Refuge, Monroe Co. (DJT). **Blue-winged Teal**: 6 Apr (56) Watauga River, Carter Co. (RLK), max. **Rough-legged Hawk**: 28 Mar (1) Rock Creek Park, Unicoi Co. (FJA). **Wild Turkey**: 25 Mar (16) Wilbur L. (TFL). **American Woodcock**: 3 Mar (5) Cades Cove (DJT). **Laughing Gull**: 20 Apr (1) S. Hol. L. (JWC). **Bonaparte's Gull**: 6 Apr (1 dead) near Sam's Gap, Unicoi Co. (RPL), apparently due to a heavy fog; 6 Apr (125) Tellico Lake, Monroe Co. (DJT); 7 Apr (1) S. Hol. L. (JWC, LCM). **Caspian Tern**: 15-27 Apr (1-2) S. Hol. L. (JWC, LCM). **Black-billed Cuckoo**: 4 May (1) Hampton Creek near Roan Mt. (FJA); 18 May (1) Holston V. (RPL). **Ruby-throated Hummingbird**: 14 Apr (1 m) Holston V. (RPL), ers.

Flycatcher-Grosbeak: **Willow Flycatcher**: 25 May (1) Unicoi (TSM), new nesting location. **Common Raven**: 11 Apr-10 May (nest with 4 yg) Devil's Looking Glass, Erwin, Unicoi Co. (RLK); 12 Apr (nest with 2+ yg) Doe River gorge, Carter Co. (RLK); 16 Apr (nest with 4 yg) quarry at town of Watauga, Carter Co. (RLK), storm destroyed nest in late Apr, but young fledged. **Brown Creeper**: 4 May (2 singing) Roan Mt. (RLK). **Carolina Wren**: numbers way down after a very hard winter. **Sedge Wren**: 23 Apr (1) Unicoi (FJA). **Yellow-throated Vireo**: 12 Apr (1) Doe River gorge, Carter Co. (RLK), early. **Warbling Vireo**: 25 May (1) Unicoi (Martha Dillenbeck et al.). **Brewster's Warbler**: 4 May (1 m) Roan Mt. (FJA), singing blue-winged song. **Swainson's Warbler**: 27 Apr (3 m) Miller L. (FJA); 3 May (1 m) Ripshin Lake, Carter Co. (RLK). **Vesper Sparrow**: 6 Apr (7) Chota Waterfowl Refuge, Monroe Co. (DJT). **Purple Finch**: Large influx during period; 112 banded thru period at Holston V. (RPL); 7 Apr (72) Stoney Creek, Carter Co. (TSM), max; 8 May (1 f) Holston V. (RPL), lrs. **House Finch**: Up to 6 individuals were noted with the conjunctivitis disease in early April in Holston V. (RPL). **Red Crossbill**: 20 Apr (2) Buffalo Mountain, Washington Co. (FJA). **Pine Siskin**: Scattered small flocks thru early May. **Evening Grosbeak**: 20 Apr (30) Shady V. (JLS), max.

Locations: See page 81.

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Observers: See page 82.

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NOTICE TO RESEARCHERS AND LIBRARIES

Volume 68, Number 1, has preceded this issue. Volume 67, Numbers 1-4, is printed in this single issue. Several references in this issue include dates later than the cover date of 1996. The journal is behind schedule and it has been necessary to use material which, in some cases, was submitted and accepted later in the year.

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NESTING BIOLOGY OF HOUSE FINCHES IN WEAKLEY COUNTY, TENNESSEE

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ABSTRACT. We studied 52 nests of House Finches (*Carpodacus mexicanus*) in northwest Tennessee during three nesting seasons, 1992-1994. Most of the nests were in evergreen shrubs; various other nest sites, such as ornamental ferns, metal light fixtures, and roof gutters were also used. Egg laying occurred from mid-March into July. Most clutches contained either four or five eggs. Mean clutch size was 4.5. Smaller clutches were more common late in the nesting season. Sixty-eight percent of the eggs hatched, and 53 percent of the eggs produced fledglings. Sixty-four percent of the nests produced at least one fledgling. Successful nests fledged an average of 3.6 young.

INTRODUCTION

House Finches are native to the western United States (American Ornithologists' Union 1983). Prior to 1940, large numbers of House Finches were shipped to the eastern United States to be sold as cage birds. In 1940, some House Finches were apparently released from captivity in New York and established a wild population (Elliot and Arbib 1953; Aldrich and Weske 1978). Since then, the eastern population of House Finches has increased exponentially and the species is now present in most of the eastern states (Bock and Lepthien 1976).

The first documented sighting of a House Finch in Tennessee was made on 24 March 1972 in Greene County (Holt 1972). House Finch nests were first found in Tennessee in 1981 (Knight 1982; Phillips 1982), but young House Finches, presumed to have fledged from nearby nests, were observed being fed by adults in 1980 (Laughlin and Phillips 1981; Dubke and Dubke 1980) and possibly as early as 1979 (Dubke and Dubke 1980). House Finches now nest in all regions of Tennessee, but most nests are in urban and suburban areas (Tanner 1988). During winter, large numbers of House Finches are present wherever feeders are present, in urban and suburban areas as well as rural sites, across the state (Tanner 1985). Banding results (T.D. Pitts and M.S. Pitts, unpublished banding data) indicate that some House Finches are permanent residents in Tennessee. In addition, large numbers of House

Finches either move through the state during migration or overwinter here.

Other than a few reports documenting the establishment of breeding populations in various counties (e.g., Phillips 1982, Waldron 1986), little information has been published about the breeding history of House Finches in Tennessee. We studied House Finch nesting biology in order to describe attributes such as the dates of nesting, clutch size, and hatching and fledging success. We believe that such information will be of value as biologists follow the population changes of House Finches and attempt to evaluate their impact on other species, especially birds, that live in Tennessee.

STUDY AREA AND METHODS

Weakley County, near the northwest corner of Tennessee, was one of the last counties in the state to be colonized by House Finches. We first observed House Finches in Weakley County on 16 December 1986; nesting was first documented in 1987 (T.D. Pitts, unpublished data). Since then the number of House Finches in Weakley County, as elsewhere in the state, has increased explosively. The species now commonly nests throughout the county in urban and suburban areas. Thousands of House Finches are present in the county during the winter (T.D. Pitts and M.S. Pitts, unpublished banding data).

We studied the nesting biology of House Finches in Weakley County during three nesting seasons, 1992-1994. Each week from early March through mid-August in 1992 and 1993 and each week from early March through mid-June 1994 we systematically searched two groups of evergreens and recorded information about each nest that we found. One group of evergreens consisted of 50 Virginia pines (*Pinus virginiana*) that were 2.0-2.5 m tall. These trees were in two parallel rows about 2 m apart; the 25 trees in each row were set at intervals of about 3 m. This cluster of trees was located on the east side of the University of Tennessee at Martin (UTM) golf driving range. Apparently the trees were placed in a dense cluster to form a screen or barrier between the golf range and an adjacent private residence. The second group of evergreens we searched was located on the west and north side of the UTM tennis courts. Most of these trees were Virginia pines, but some were white pine (*P. strobus*) and white spruce (*Picea glauca*). These trees varied in height from 2 m (spruce) to 7-8 m (white pine). The trees had apparently been planted in two rows about 3-4 m apart, but due to either deliberate removal or natural mortality, only a single zig-zag row of 25 trees remained. Within the row, most of the trees were 3-6 m apart. In addition to these two sites, we sporadically searched for House Finch nests elsewhere on the UTM campus and in the town of Martin.

At each nest we attempted to determine the dates of nest construction, the dates of egg laying, the number of eggs laid, the number of eggs that hatched, and the number of young that fledged. At a few conspicuous nests we observed adult activities and determined the dates of incubation, hatching, and fledging. We inspected the legs of each adult to determine if bands were present. At 12 of the nests that we studied in 1993, we banded the young with unique combinations of aluminum and colored plastic bands.

RESULTS

We found 52 active nests of House Finches: 14 in 1992, 22 in 1993, and 16 in 1994. Our data are incomplete for some of the nests. Thirty-eight of the nests were in evergreens on the UTM campus. We found other nests in a diversity of sites: in

light fixtures, on metal ornaments attached to buildings, in partially covered gutters beneath the eaves of a service station, on top of a post inside a shed, and in hanging baskets of ferns. We did not find any nests in deciduous shrubs or trees. The height of nests above ground varied from 1 m to approximately 6 m. We measured or estimated the height of 30 nests; the mean height was 2.0 m. Nests in evergreens were concealed by the foliage. Several nests were built in Virginia pines that had a dense growth of a trumpet-creeper vine (*Campsis radicans*). In contrast to these well concealed nests were nests that were conspicuously visible on light fixtures or on metal awnings.

House Finch nests were frequently, but not always, built near other House Finch nests. We found two active nests about 0.4 m apart in a white spruce. Most of the nests were in clusters of three to five within a 10 m radius. A few of the nests were solitary; that is, we did not find another active nest within 50 m. We found nests of six other species of birds in shrubs near House Finch nests. These species were: Northern Cardinal (*Cardinalis cardinalis*), Northern Mockingbird (*Mimus polyglottos*), Brown Thrasher (*Toxostoma rufum*), Mourning Dove (*Zenaida macroura*), Blue Jay (*Cyanocitta cristata*), and American Robin (*Turdus migratorius*). No House Sparrow (*Passer domesticus*) nests were observed near House Finch nest sites. In only one case did we find a House Finch nest in a tree containing the nest of another species; a Virginia pine supported a Brown Thrasher nest 1.2 m above the ground and a House Finch nest 2.5 m above the ground. As we inspected shrubs and trees for nests, House Finches often flushed in response to the alarm notes of robins, mockingbirds, or thrashers. Otherwise, we did not see any interactions between House Finches and the other birds nesting nearby.

The House Finch nesting season extended from mid-March into late July. The first egg we found each year was laid in March (18 March 1992, 14 March 1993, and 26 March 1994). The timing of the latest clutch each year was less consistent. The first egg was laid in the last clutch on 6 July 1992, 25 June 1993, and 4 June 1994. We determined the clutch size at 50 nests; 26 nests received five eggs, 23 nests received four eggs, and one nest had three eggs. The average clutch size was 4.5. Slightly more of the clutches of five were laid early in nesting season, and more clutches of four were laid later in the season (Figure 1). The peak of nesting activity, based on the number of eggs being laid, occurred from mid-April through the first week of June (Figure 2).

Table 1 summarizes our data for the 45 nests where we determined the fates of eggs and nestlings. Of the 45 nests, 29 (64%) successfully fledged at least one young. Nest success varied between years. In 1992, seven of 14 (50%) nests were successful; in 1993, 13 of 19 (68%) were successful; and in 1994, nine of 12 (75%) were successful. We were not able to determine a probable cause of failure at several nests. One nest failed because the eggs were overheated by a light fixture. Two nests were destroyed when people moved hanging ferns. At least three nests were not securely attached; the eggs and young fell out of the nests when the nests tilted. Two nests in a gutter were flooded and the eggs washed away. The eggs were abandoned in at least three nests. At one nest all of the young died at the age of about 12 days; the feces of these nestlings were watery, possibly as a result of a viral or bacterial infection. Some, but not all, of the eggs and young disappeared from seven nests. One House Finch nest received two Brown-headed Cowbird (*Molothrus ater*)

FIGURE 1. Relationship between clutch size and date of laying for 46 House Finch nests in Weakley County, Tennessee. In some cases a data point represents more than one nest.

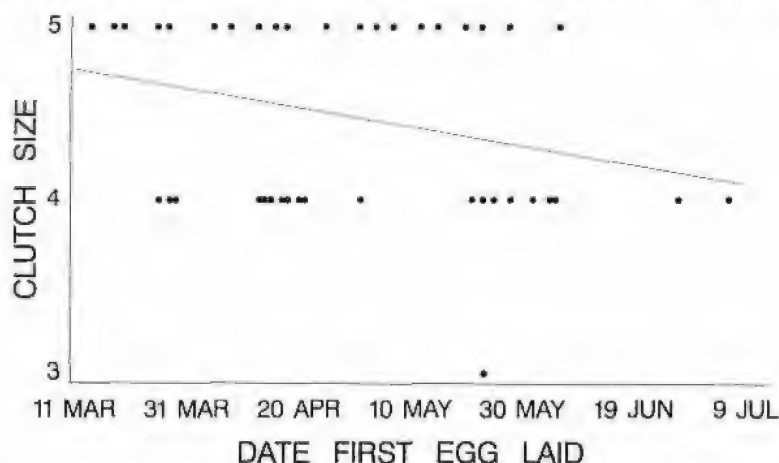
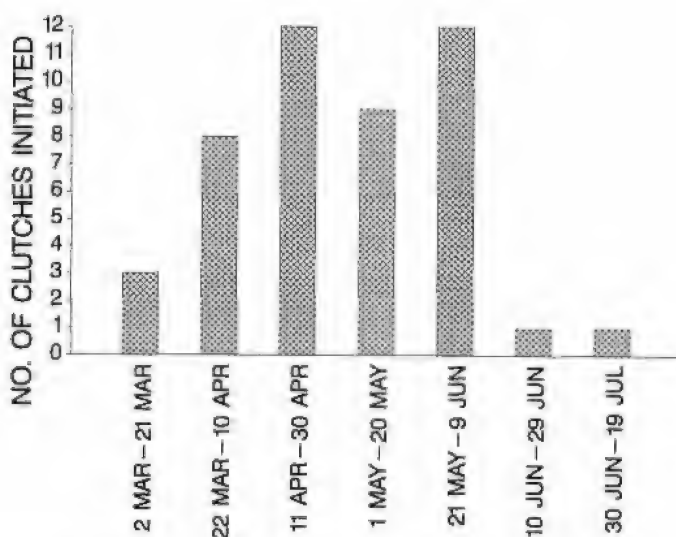


Figure 2. Date of clutch initiation for 46 House Finch nests in Weakley County, Tennessee, 1992-1994.



eggs. We do not know if the cowbird removed any finch eggs from the nest. Neither of the cowbird eggs hatched, but three of the four finch eggs produced fledglings. One finch nest appeared to have been destroyed by a mammalian predator; other nests, such as those that tilted, may have been visited by mammalian or reptilian predators. We did not see any snakes during our nest inspections. The only mammalian predator we encountered was a domestic cat that we flushed from the bottom of a shrub containing a finch nest. The nest was successful.

TABLE 1. Hatching and fledging success at 45 House Finch nests.

	1992	1993	1994	Total
No. of eggs laid	63	76	56	195
No. (and %) of eggs that hatched	36 (57)	50 (66)	47 (84)	133 (68)
No. (and %) of eggs that produced fledglings	27 (43)	43 (57)	34 (61)	104 (53)
Mean no. of young fledged per successful nest	3.9	3.3	3.8	3.6
Mean no. of young fledged per nesting attempt	1.9	2.3	2.8	2.3

Nests were constructed in three to five days except in the early part of the nesting season when nest construction was sometimes slower. Each of the nests contained some type of white fibers, such as string or shredded cigarette filters, in addition to the plant materials that were present. The female laid one egg each day until the clutch was completed. Incubation began before the clutch was completed. At the three nests where we made daily observations, the female began incubation after laying the second egg. Incubation lasted approximately 14 days; the last egg to be laid sometimes hatched as long as 48 hours after the first egg hatched. Both adults fed the nestlings. We did not observe the adults removing feces of the young from the nest. During the later part of the nestling stage a conspicuous layer of feces accumulated around the rim of most successful nests. Because of asynchronous hatching, young nestlings differed noticeably in size, weight, and stage of plumage development. These differences were less obvious during the later part of the nestling stage. All of the young typically fledged with a 24-hour period although at some nests one or two young remained for 24-48 hours after the other young had fledged.

DISCUSSION

House Finches that nested in trees clearly showed a preference for Virginia pines and spruces. Even though other evergreen trees and shrubs, such as eastern hemlock (*Tsuga canadensis*), eastern white pine, and loblolly pine (*Pinus taeda*), and many deciduous trees and shrubs were present in the area we searched for nests, we did not find any House Finch nests in these species. Graham (1988) likewise found that House Finches in Guelph, Ontario preferred evergreen trees over deciduous trees for nest sites. House Finches will nest in various habitats; however, in each habitat the finches apparently prefer certain sites (Graham 1988).

Like Graham (1988) we suspect that the trees with open foliage did not provide sufficient cover or concealment as did the thick foliage of Virginia pines and white spruce. Finch nests in Virginia pines with trumpet-creeper vines were especially difficult for us to find, even after flushing a female from her nest. Presumably such concealment would hinder potential nest predators as well. Concealed nests would

also be better protected from rain and wind. In contrast to these well concealed nests were the nests that were placed on light fixtures or on metal awnings. While such nests were conspicuous to us, these nests were sheltered, some completely, but some only partially, from rain, wind, and the view of predators that flew overhead.

We suspect that the height of finch nests above ground may reflect the availability of suitable nest sites rather than an actual preference for a specific height. Many of the evergreen shrubs where we found nests had been pruned to retard their growth in height and to encourage lateral growth. Our data on nest height are possibly biased because we concentrated our searches on potential nest sites that were less than 3 m above the ground.

While we were able to document a relatively long nesting season, with egg laying from mid-March through early July, we suspect that some House Finches begin nesting earlier than mid-March, particularly in mild years. Likewise we suspect that some, perhaps several, House Finches lay eggs in late July and possibly August. We believe that the small number of nests we found does reflect the peak time of nesting; however, a larger sample would probably show both earlier and later nesting dates. None of the approximately 2,000 House Finches we had banded locally (T.D. Pitts and M.S. Pitts, unpublished banding data) were found at any of the nests we studied. Therefore, we could not determine how many nests a pair of finches had during a nesting season. Based on the length of time required for nesting (approximately 35-40 days from nest construction to fledging of young) and the fact that nesting extended over a four-month period, we believe that many pairs had two successful nests. Some pairs may have had three successful nests. The fact that finch nests were repeatedly built at the same site (both within a nesting season and from one year to the next) leads us to think that the same individual, or pair, may return to nest at a site it had previously used.

The percentage of our nests that fledged no young (16 of 45, 36%) was higher than the 19% (54 of 286 nests) failure rate reported by Wootton (1986) for the northeastern United States. The rate of cowbird parasitism we detected (1 of 52 nests, 2%) was lower than the 11% parasitism rate for the northeastern states but similar to the 1% parasitism rate for House Finch nests in the western states calculated by Wootton (1986) from North American Nest Record Card Program data. The mean clutch size was the same in our study (4.5, $N = 50$) as in the northeastern states (4.53, $N = 108$) (Wootton 1986).

Many of the aspects of House Finch nesting biology that we observed are typical of the species in western states where, in some habitats, House Finches are one of the most abundant bird species (Woods 1968). For example, the use of white material in the nest lining, the accumulation of feces on the rim of the nest, the presence of more than one active nest in a single tree, and the frequent use of human dwellings as nesting sites were mentioned by Woods (1968).

FUTURE STUDIES

Much remains to be learned about the nesting habits of House Finches in Tennessee. The apparent initiation of incubation after laying the second or third egg, and the asynchronous hatching, but near synchronous fledging, deserve more documentation and study. The accumulations of feces around the rim of some nests also intrigues us: does the presence of the feces influence nest success? Are potential

predators attracted or repelled by the accumulating feces? Are males polygamous? Are the nests that are close to each other built by relatives? What are the effects of nesting House Finches on other species, particularly House Sparrows? We hope that bird students will not be content to simply accept House Finches as a part of the Tennessee avifauna. Instead, we encourage intensive study of this extremely successful species.

ACKNOWLEDGMENTS

We especially appreciate the assistance of students from TDP's ornithology classes. The 1992 House Finch crew included Linda Baxter, Emily Hickerson, Jim Overman, and Karen Wright. The 1993 crew was Kim Douglas, Barry Long, Terri Lowery, and Jill Story. The 1994 crew was Buddy Brien, Monica Clutch, Marti Johnson, David Pike, Patrick Trentham, and Jim Vasilko.

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IN MEMORIAM:
KATHERINE ANDERSON GOODPASTURE, 1909-1995

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Nashville, TN 37215

Friends of Katherine Goodpasture were saddened by her death on 12 February, 1995, after a long illness. The scholarly mind, enthusiasm for teaching natural history, and gracious friendliness of this chipper little lady have enriched many lives.

Born Frances Katherine Anderson in 1909 in Williamsport, Tennessee, she attended schools there, graduated from Columbia High School and received her A.B. in 1932 and Ph.D. in 1940 from Vanderbilt University in virology. She worked under Dr. Ernest W. Goodpasture in the Pathology Department and collaborated from 1937-1945 with his group in research and publication of some of the most important studies of his career, in viruses and infectious agents utilizing chick embryo media. She also taught biology classes for a short time in the nursing school.

Records show that Katherine joined the Nashville Chapter of the Tennessee Ornithological Society in 1941 or 1942 and took an active part in all projects. She is first mentioned in the Christmas Count of 1942 and her oldest checklist shows that she and Dr. W.R. Spofford counted the Glendale and Radnor sectors that winter.

Katherine and the widowed Ernest Goodpasture were married in 1945 and she graciously assumed the duties of the wife of the Dean of the Vanderbilt Medical School. Many records from the Goodpasture home, "408 Fairfax" in Nashville, show her interest in backyard birding.

In 1949 the Goodpastures purchased a country retreat, Basin Spring (named for its ever-flowing water supply), located in the South Harpeth River Valley in Williamson County. The 200 acres contained a tiny old settlement of cabins strewn along the Spring Branch, old pastures, and cut-over, second growth mixed hardwood forest covering steep ridges. For the next five years they enjoyed gardening, running cattle and hosting family and friends.

Here Katherine explored extensively and garnered many records of birds and flora of the South Harpeth Valley. Her notebooks and articles in *The Migrant* testify to her increasing skills in field work, notable examples being of a nesting Horned Lark (1950); effects of the great ice-storm of 1951 on birds and the recovery of a chickadee population; warblers breeding at Basin Spring (14 species documented 1949-1953); and Sharp-shinned Hawks nesting in 1955. Katherine's forte in her field work was slow, patient, quiet approach, and listening with her exceptionally acute hearing. Her warm friend, Amelia Laskey often visited for a "Bird Day" and banded nestlings for her.

In 1955 Ernest retired from Vanderbilt and was called to the Washington, D.C. area as Scientific Director of the Armed Forces Institute of Pathology. Katherine loved the activities of the Capitol region. She joined local bird clubs and visited the east coast as far north as Maine. She became acquainted with leading ornithologists in the U.S. government's Patuxent Bird Banding Office in Maryland where she learned the use of mist nets and witnessed the inauguration of new research projects on the patterns of bird migration, such as Operation Recovery along the east coast set up by Chandler Robbins and others. Katherine received her banding

license in 1956 and was recognized as a coming co-worker in the field.

Ernest resigned from national service in 1959 and they spent the winter months at the University of Mississippi Medical Center. They wrote their last paper together on the pathology of bird pox from a wintering junco and returned to Nashville in 1960. Ernest died in September 1960 and Katherine's friends knew her thereafter at the home on Hopkins Lane and at beloved Basin Spring.

Over the years countless people were drawn to her. She welcomed them all — students, drop-in acquaintances, family, and field trippers. With them she tramped the trails, taught her friends to see and hear the natural world and the special charm of birds and Basin Spring, and served as mentor for future banders.

In addition Katherine enjoyed seeing other lands and joined tours with fun-loving Tennesseans to Mexico, the Galapagos Islands, Trinidad and Tobago, Texas, Arizona and Colorado. These experiences greatly enlarged her spirit and knowledge.

In the years from 1960 until her inactivity in 1988 Katherine worked hard and responsibly at birding. She kept many records valuable in migratory and nesting studies and as intrinsic data for the publication of succeeding issues of the "Birds of Nashville;" she documented and analyzed TV tower kills of birds in fall migration; for 20 years she coordinated Tennessee's part in the significant Breeding Bird Surveys, running many routes herself; she served in official capacity in the TOS in Nashville and the state and received from the state its Distinguished Service Award in 1990 at the 75th Anniversary of the Society; and she took part in forays and atlasings. Of great importance, Katherine published her investigations with meticulous accuracy in national journals and *The Migrant*. Many of her findings resulted from bird banding; she banded 48,490 birds and published over 40 articles, always careful to give credit to helpers.

Subjects of only a few of Katherine's later papers may be mentioned: age, sex and wing length of tower kills in fall migration of 1962 (often quoted) and subsequent analyses in other years; fall banding at Two Jays Sanctuary, a concerted effort by Nashville members; her own annual banding effort at Basin Spring August to November resulting in useful records; the first breeding record of the Traill's Flycatcher in Nashville in 1971 (with Fred J. Alsop, III); the splendid return of an eight-year-old Louisiana Waterthrush to nest again along the Spring Branch in 1976. All are striking tributes to her orderly and scientific approach.

Katherine took much pleasure in native plant life; a long list of Basin Spring flora exists, including 11 species of orchids. She belonged to the Town and Country Garden Club and gave many delightful talks to organizations.

We all have memories of Katherine — tramps through the woods, picnicking at the cabin with yellow daffodils glowing, running netlines and holding a tiny bird, going to the symphony together, hearing wise counsel, and knowing that with the winging of birds and the blooming of flowers, special remembrances of Katherine are in our hearts.

Accepted 17 July 1996.

THE SEASON

ROBERT P. FORD, Editor



SUMMER: 1 JUNE - 31 JULY 1996

WESTERN COASTAL PLAIN REGION: Despite lower than usual temperatures and above average rainfall, this season was one of the best birding seasons in a long time. Although many of the favorite birding spots were not always accessible, two unexpected species were found in Lake County. Pacific Loons were observed on two occasions. The Curlew Sandpiper was a first for the state and many photographs were taken. Anhinga, Tri-colored Heron, White Ibis, White-faced Ibis, Purple Gallinule, and a Scissor-tailed Flycatcher rounded out the season. Many other noteworthy species are included in this season's report. However, in the interest of space, the more common and expected species were not included. The regional compiler may be contacted for additional information or copies of the TRBC/ photos of the more unusual species. A roundtable note about a heronry on the south end of Island 20 west of Heloise in Dyer County is being prepared and it will contain more specific information about the heronry.

Loon-Duck: PACIFIC LOON: 4-10 Jun (1) Mud Lake (WGC, m. ob.), second record for Lake Co.; A second bird was observed on 22 Jun (1) Mud Lake (WGC). WGC reports that this loon was not as gray on the crown and nape, was blacker on the back, had no white spots and there was no obvious chin strap. **Common Loon:** 8-10 Jun (1) Mud Lake (WGC, MAG). **American White Pelican:** 9/23 Jun-16 Jul (49 max) Gr River Rd/Whites Lake (WGC, MAG); 18 Jun/19-29 Jul (75 max) Lake Co. (WGC). **Anhinga:** 17 Jun-19 Jul (1 m, 1 f) Hwy 104W (WGC, MAG); 30 Jun (1) Shelby Forest S. P. (VBR); 9 Jul (6) Reelfoot L., Lake Co. (WGC, MAG, NaM); 23 Jun (1) Reelfoot L., Obion Co. (WGC). **Least Bittern:** 23 Jun (4/3) Reelfoot L. NWR, two locations, Obion Co. (WGC, NaM, Terry Pride). **Tri-colored Heron:** 1 Jun (1 ad) Whites Lake & 17 Jun (1 ad) Hwy 104W (MAG); 16 Jul (1 ad) Hwy 103W and Gr River Rd & 21/29 Jul (1 ad) Mud Lake (WGC). **Black-crowned Night-Heron:** 7-13 Jun (11 ad, 3 im) Hwy 104W, 26/27 Jun (15 ad, 2 im) Whites Lake & 9/18 Jun (3/8 ad, 2 im) Hwy 79W (WGC). **Yellow-crowned Night-Heron:** 13 Jun (1 ad) Black Bayou (WGC); 3 Jul (1) Shelby Forest S P (DDP); 21 Jul (1 ad, 1 im) Mud Lake (WGC). **White Ibis:** 9 Jun (4 ad) Hwy 104W, Ernest Rice WMA, 20/29 Jul (4 im) Whites Lake & 21/30 Jul (2/1 im) Mud Lake (WGC). **WHITE-FACED IBIS:** 3/4 Jun (8, breeding plumage) Gr River Rd and Hwy 104W (WGC, m. ob.). **Greater White-fronted Goose:** 13 Jun (1) Hwy 79W (WGC), first summer record for state. **Green-winged Teal:** 9 Jun (1 m) Mud Lake (WGC). **Blue-winged Teal:** 9 Jun (1 m, 1 f, 1 downy yg) Mud Lake &

13 Jun (2 m, 1 f) Black Bayou (WGC). **Northern Shoveler**: 7/8 Jun (4 m, 1 f) Black Bayou (WGC); 12 Jul-EOP (9 max) Shelby Farms (MLG). **Gadwall**: 9 Jun (2 m) Mud Lake & 1 Jul (2 m) Hwy 103W and Gr River Rd (WGC). **American Wigeon**: 9-17 Jun (1 m) Gr River Rd (WGC, MAG), first summer record for west TN. **Ring-necked Duck**: 27 Jun/11 Jul (5 m) Walnut Log & 27 Jun (1 m) Whites Lake (WGC). **Ruddy Duck**: 27 Jun (1 f) Samburg (WGC).

Osprey-Tern: **Osprey**: 23 June (3) Reelfoot L. NWR, Obion Co. (WGC, NaM, Terry Pride); 23 Jun (2 ad, 2 im) Reelfoot L. NWR, Obion Co., 27 Jun (2 ad, 1 juv on nest) Champy Pocket, Reelfoot L. S. P. & (1) Walnut Log (WGC). **Bald Eagle**: 20 Jul (1 im) Whites Lake (WGC). **Northern Harrier**: 28 Jul (1) Hwy 79 and 105, Carroll Co. (NPM, SNM), first Carroll County summer record. **Red-shouldered Hawk**: 9 Jun (1, carrying snake) Hwy 104W (RDH, DoM); 15 Jun (nest with two yg) residential property in ne Shelby Co. (OKM). **King Rail**: 5 Jun (1 ad) Mud Lake (MAG); 9/10 Jun (2/1 yg) Hwy 104W (WGC, MAG); 2/29 Jul (3 ad, 1 juv/6) Black Bayou (WGC). **PURPLE GALLINULE**: 9/17 Jun (1) Hwy 104W (WGC, MAG), second Dyer Co. record. **Common Moorhen**: 23 Jun (6 max) Reelfoot L. NWR, two locations, Obion Co. (WGC, NaM, Terry Pride); 27 Jun/11 Jul (1/5) Walnut Log (WGC). Weekly observations at the EARTH Complex recorded 13 species of shorebirds reported by CHB, MLG, SRM, VBR, BHW, MGW. Only selected species have been included in this report. **American Golden-Plover**: 1/16 Jul (3/5) Island 13 Rd (WGC), early state record. **Lesser Yellowlegs**: 1 Jul (1) Whites Lake (WGC), early west TN. **Black-necked Stilt**: 4/17 Jun (5) Gr River Rd and Hwy 104W & 1-29 Jul (12, at least one nesting attempt observed) Hwy 103 and Gr River Rd (WGC, MAG); 13 Jun-1 Jul (2) Lake Co. (WGC); 13 Jun EOP (87) EARTH COMPLEX; 20 Jul (21) Carruthersville, MO. (WGC). **Sanderling**: 29/30 Jul (2/1) Hwy 79W (WGC). **Semipalmated Sandpiper**: 2 Jul (1) Hwy 79W (WGC), early west TN; 14 July-EOP (452 max) EARTH Complex. **Western Sandpiper**: 7 Jul (1) Hwy 103W and Gr River Rd (WGC); 14/22 Jul (3) EARTH Complex. **Least Sandpiper**: 28 Jul (1685) EARTH Complex. **White-rumped Sandpiper**: 3-9 Jun (34+ max) Hwy 79W & (80) Island 13 (WGC, MAG); 22 Jul (2) EARTH Complex. **Pectoral Sandpiper**: 14 Jul-EOP (516 max) EARTH Complex. **Dunlin**: 3/4 Jun (2) Hwy 79W (WGC, MAG, JRW). **Stilt Sandpiper**: 28 Jul (70) EARTH Complex. **CURLEW SANDPIPER**: 3/4 Jun (1, breeding plumage) Hwy 79W (WGC, m. ob.), first for TN. **Short-billed Dowitcher**: 15 Jul (1) Shelby Farms (MLG); 28 Jul (1) EARTH Complex. **Long-billed Dowitcher**: 29 Jul (2) Whites Lake WMA (WGC). **Laughing Gull**: 9/10 Jun (1 ad, breeding plumage) Hwy 79W (WGC, MAG). **Ring-billed Gull**: 11 Jul (2) Island 13 (WGC). **Caspian Tern**: 2-18 Jun (4 max) levee, Island 13 (WGC, RDH, DoM, WRP); 7-22 Jun (4) Hwy 79W/Mud Lake (WGC, MAG). **Common Tern**: 4 Jun (1) Hwy 79W & (1) Island 13 (WGC). **Forster's Tern**: 7/10 Jun (1) Hwy 79W (WGC, MAG, RDH, DoM); 2 Jul (1) Whites Lake (WGC). **Least Tern**: 4 Jun (2 nests, 3 eggs each) Hwy 79W (WGC). **Black Tern**: 3-22 Jun (31 max) Hwy 79W & 8-18 Jun (10 max) Island 13 (WGC, MAG); 17/31 Jul (1/8) Shelby Farms (MLG); 30 Jul (13) Whites Lake & (4) Hwy 79w (WGC).

Flycatcher-Sparrow: **Least Flycatcher**: 3 Jul (1, not heard, observed for 2-3 min. from 10-12 ft. compared with **Acadian Flycatcher** nearby) Shelby Forest S. P. (DDP). **Scissor-tailed Flycatcher**: 13 Jul (1 m) Reelfoot L. S. P. (NaM). **Tree Swallow**: 26 Jun (3 ad, feeding yg, 25 ft above water, dead willow snag) Tennemo Levee Rd., Dyer Co. (WGC). **Bank Swallow**: 4 Jun (8 nesting holes) Levee Rd, Lake Co. (WGC); 13

Jun (40, feeding yg) Chickasaw Bluff #1 (CHB, VBR, MGW); 2 Jul (130) Phillipy (WGC). **Horned Lark**: 13 Jun (nest with 2 eggs) Island 13 Rd. (WGC). **Cedar Waxwing**: 1 Jun (1) s of Reelfoot L. S. P., 1 mi east of Samburg (WRP). **House Wren**: 2 Jun-EOP (1) Humboldt, Gibson Co. (MAG). **Blue-winged Warbler**: 27 Jun (1) south of Pine Top, Hardeman Co. (CHB, SRM, VBR). **Pine Warbler**: 1 Jun-EOP (5 nests) Farmington Country Club, Shelby Co. (MLG), second summer nesting for Shelby Co. **Black-and-white Warbler**: 16 Jun (1) Ghost River section, Wolf River WMA (Larry Smith). **Chipping Sparrow**: 1 Jun-EOP (2 nests) Farmington Country Club, Shelby Co. (MLG). **Grasshopper Sparrow**: 2 Jun (4) se Lake Co. (WRP); 13 Jun (1) President's Is. (VBR, MGW). **Song Sparrow**: 2 Jun (1) levee, Island 13 (WRP); 5 Jun (1) Mud Lake (MAG); 13 Jun-EOP (3) EARTH Complex; 15 Jun (2) Tiptonville Ferry Rd., Lake Co. (MAG); 27 Jun (1) Shelby Farms (VBR).

Locations: See page 81.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38119

EASTERN RIDGE AND VALLEY REGION: Summer temperatures were near normal, while rainfall was slightly above average. Thus, conditions appeared favorable for a good breeding season. Notable reports included nests of Least Bittern, Sharp-shinned Hawk, and Dickcissel.

Grebe-Ibis: **Pied-billed Grebe**: 7 Jun (1) Bra Lev (KAC); 19 Jun (2) Baylor L., Hmlt Co (KAC); 24 Jul (1) Wash Co farm pond (RLK); 27 Jul (2) Hws R area (TLR); unusual number of summer records, but no evidence of breeding. **American White Pelican**: 5 Jul (1) Chick Dam, Hmlt Co (Brainard Cooper, Jr.), where present last season. **Least Bittern**: 17 Jul (1 ad seen, 5 yg banded) Sugar Creek, Hws R area (KAC, DFV), at nest reported last season; 20 Jul (1 ad, 2 im without bands) same site (LAW), indicates a possible second nest. **Great Egret**: 3 Jun (1) & 5-31 Jul (1-2) Aus Spr, Wash Co (FJA/RLK); 27 Jul (6) Hws R area (TLR), max. **Little Blue Heron**: 2 Jul (1 ad) Amn Marsh (Paul Grant); 19 Jul (1 im) Baylor L., Hmlt Co (KAC). **Cattle Egret**: 27 Jul (16) Hws R area (TLR). **Yellow-crowned Night-Heron**: 2 Jul (1 ad, 1 im) Amn Marsh (KAC). **White Ibis**: 2-27 Jul (1 im) Amn Marsh (KAC).

Merganser-Coot: **Hooded Merganser**: 7 Jun (1 f) Bra Lev (KAC). **Osprey**: 48 active nests on Watts Bar Lake & 6 active nests on Chick L (fide TWRA). **Bald Eagle**: 1 Jun (1 ad) Chatt (RJH). **Sharp-shinned Hawk**: 21 Jun (1) Jhn City (Joe McGuiness); 29 Jun (2 ad, 3 yg at nest) Audubon Acres, Chatt (KHD, Dale Liner), first Hmlt Co nest record. **Cooper's Hawk**: 6 & 20 Jun (1) Lst (FJA); 10 & 25 Jun (1) Jhn City (RLK, JWB). **Broad-winged Hawk**: 22 Jun (nest with 2 yg) Marion Co (WGH et al.). **Peregrine Falcon**: 26 Jun (1 carrying prey) Chatt at Moccasin Bend flying toward the Tenn. River Gorge (Dale Liner), this presents exciting possibilities. **American Coot**: 27 Jun (3) Chick L, Hmlt Co (KHD).

Sandpiper-Woodpecker: **Solitary Sandpiper**: 22 Jul (1) Amn Marsh (KAC), ers. **Semipalmated** and **Least Sandpiper**: 23 Jul (3 & 1, respectively) Ktn Stm P, Roane Co (KAC), ers. **Western Sandpiper**: 7 Jun (1) Bra Lev (KAC), a very late spring migrant. **Eurasian Collared-Dove**: 26-27 Jun (1) Chatt (TLR, KAC) in same neighborhood as previous reports. **Yellow-billed Cuckoo**: good numbers in northeast Tenn.; 22 Jun (11) Wash Co (RLK), max. **Barn Owl**: 22 Jun (1) Jonesborough, Wash Co (DEH); 24 Jun (4, including grown yg) Veteran's Affairs Center, Jhn City (RLK,

JWC, LCM, Andy Jones). **Red-headed Woodpecker**: 4+ active sites in Wash Co (RLK, FJA).

Passerines: **Willow Flycatcher**: 19 Jun (1) new site in Jhn City (JWN). **Least Flycatcher**: 24 Jul (1 im banded) Prentice-Cooper WMA, Marion Co (KAC), early migrant or regionally produced? **Tree Swallow**: 14 Jun (pair at nest box) Holston Army Ammunition Plant, Hawkins Co (FJA); 22 Jun (ad with 2 yg) Lst (RLK); 4 Jul (4 yg fledged) Jonesborough, Wash Co (JWB). **Cliff Swallow**: 22 Jun (112 nests) Picken's Bridge, Boone L, Wash & Sullivan Cos (RLK), population there continues to grow. **Yellow-throated Vireo**: 15 Jun (6) Marion Co mini-BBS route (KAC), max. **Red-eyed Vireo**: 15 Jun (73) Marion Co mini-BBS route (KAC), max. **Chestnut-sided Warbler**: 28 Jul (1) Signal Mtn, Hmlt Co (Jack Colcolough), early migrant. **Black-throated Green Warbler**: 30 Jun (17) Hmlt Co (KAC), max. **Blackburnian Warbler**: 28 Jul (1) Signal Mtn, Hmlt Co (Jack Colcolough), early migrant. **Cerulean Warbler**: 3 Jun (2) Tellico Wilderness, Monroe Co (KAC); 22 Jun (1 ad feeding fledgling), 1 Jul (3 ad m, 2 ad f banded) Pot House, Marion Co (WGH/KAC). **Yellow-breasted Chat**: 15 Jun (14) Marion Co mini-BBS route (KAC), max. **Blue Grosbeak**: good numbers in northeast Tenn.; 22 Jun (8 m) Wash Co (RLK, JWC, LCM, Andy Jones), first Wash Co nest record & only second for northeast Tenn., birds present thru Jul. **Savannah Sparrow**: 22 Jun (1 singing) Pleasant Valley, Wash Co (RLK); 25 Jun (pair: m singing, f agitated by observer's presence) Gray, Wash Co (RLK). **Grasshopper Sparrow**: good numbers in northeast Tenn.; 22 Jun (14 singing m) Wash Co (RLK), max.

Locations: See page 81.

RICHARD L. KNIGHT, 804 North Hills Drive, Johnson City, TN 37604

EASTERN MOUNTAIN REGION: Precipitation was above normal for the period. Temperatures were slightly below normal. An extensive effort was made by Larry McDaniel and Wallace Coffey to cover South Holston Lake in July. The result was several sandpiper, gull, tern, and egret records, some of which were quite early.

Grebe-Owl: **Pied-billed Grebe**: 15 Jun (1) S. Hol. L. (LCM, JWC). **Great Egret**: 15 Jul thru EOP (5-14) S. Hol. L. (JWC, LCM, RPL); 24 Jun (1) Butler, Johnson Co. (Rusty Dunn). **Black-crowned Night-Heron**: 20 Jul thru eop (2-4) S. Hol. L. (JWC, LCM). **Yellow-crowned Night-Heron**: 1-2 thru period in Eliz. (RLK, GOW, LCM); 28 Jul (2) Middlebrook L. (LCM, Andy Jones, JWC). **Sharp-shinned Hawk**: 30 Jun (1) Carter Co. (FJA). **Cooper's Hawk**: only 3 reports. **Bald Eagle**: 28 Jul (2 im) S. Hol. L. (JWC, LCM, Andy Jones). **Wild Turkey**: several broods reported in Cherokee National Forest (JHM). **Virginia Rail**: 15 Jun / 7 Jul (1) Bristol Industrial Park Pond, Sullivan Co. (JWC, LCM). **Lesser Yellowlegs**: 10 Jul (1) S. Hol. L. (LCM, JWC). **Solitary Sandpiper**: 20 Jul (2) S. Hol. L. (LCM, JWC), ers. **Least Sandpiper**: 20 Jul (1) S. Hol. L. (LCM, JWC), ers. **Western Sandpiper**: 26 Jul (1) S. Hol. L. (LCM, JWC). **American Woodcock**: early June (1) Shady V. (JHM). **Ring-billed Gull**: 27 Jul (1 im) S. Hol. L. (LCM, JWC). **Laughing Gull**: 4 Jul (1 im) S. Hol. L. (JWC, JLS). **Caspian Tern**: 23 Jul (1) S. Hol. L. (Greg Harris), ers. **Common Tern**: 5 Jul (1) S. Hol. L. (RLK). **Forster's Tern**: 30 Jul (3) S. Hol. L. (LCM, JWC). **Black Tern**: 15 Jul (1) S. Hol. L. (JWC, LCM), record early for region by 5 days. **Black-billed Cuckoo**: Jun (1 on territory) Hampton Creek, Roan Mt. (FJA). **Yellow-billed Cuckoo**: 30 Jun (13) Carter Co. Summer bird count (LHTOS), max. **Barn Owl**: early Jun (4) Eliz. (fide TSM).

Flycatcher-Siskin: **Alder Flycatcher**: thru period (5 m) Roan Mt. (RLK). **Tree Swallow**: 5 Jun (pair in nest box) Miller L. (RLK); 11 Jun (1) Roan Mt. Village, Carter Co. (RLK); 27 Jun (pair in nest box) Holston V. (RPL); 16 Jul (nest w/ 2 yg in tree cavity) Roan Creek, Johnson Co. (RLK). **Cliff Swallow**: 30 Jun (12 nests) Persinger Bridge, town of Watauga, Carter Co. (RLK). **Common Raven**: 2 Jun (4) Holston V. (RPL), at 1700 ft. elev.; 21 Jun (4) Unicoi (RLK). **Red-breasted Nuthatch**: 14/30 Jun (1/2) Dennis Cove, Carter Co. (RLK/TSM, DEH), in white pines at 2650 ft. elev.; 21 Jun (1) Unaka Mt. (RLK), in white pines at 3900 ft. elev.; small numbers observed in spruce-fir belt on Roan Mt. (RLK), and at Newfound Gap and Clingman's Dome in Gr. Smoky Mt. N. P. (DJT). **Brown Creeper**: 23 Jun (2) Unaka Mt. (RLK), in spruce forest; 24 Jun (3) Roan Mt. (RLK), in spruce-fir forest. **House Wren**: 24 Jun (1 singing) Roan High Knob, Roan Mt. (RLK), 6250 ft. elev. **Golden-crowned Kinglet**: 24 Jun (16) Roan Mt. (RLK), numbers seemed low. **Veery**: 20 Jun (18) Holston Mountain, Carter Co. (RLK); 21 Jun (33) Unaka Mt. (RLK), good numbers. **Loggerhead Shrike**: 4 Jun (pair) Holston V. (RPL). **White-eyed Vireo**: 30 Jun (2) Carter Co. Summer Bird Count (LHTOS), very low; Generally scarce other locations also. **Red-eyed Vireo**: 10 Jun (61) Holston Mountain, Sullivan Co. (RLK). **Blue-winged Warbler**: 22, 30 Jun (1-2) Poga, Carter Co. (TSM), present here for 5th consecutive year. **Golden-winged Warbler**: thru period (8 territories) near Roan Mt. (FJA, Melinda Wilson). **"Brewster's Warbler"**: 4 May thru mid Jun (2 m on territory) Roan Mt. (FJA, Melinda Wilson). **Magnolia Warbler**: 23 Jun (4 m) Unaka Mt. (RLK). **Blackburnian Warbler**: 14 Jun (3 m) Pond Mountain, Carter Co. (RLK); 26 Jul (1) Alum Cave Bluffs, Gr. Smoky Mt. N. P. (DJT). **Prairie Warbler**: 3 Jun (2) Bumpas Cove, Unicoi Co. (JHM); 27 Jun (2) Dry Run, Johnson Co. (RLK); 30 Jun (2) near Roan Mt. (TSM). **Ovenbird**: 10 Jun (55) Holston Mountain, Sullivan Co. (RLK). **Hooded Warbler**: 10 Jun (38) Holston Mountain, Sullivan Co. (RLK). **Canada Warbler**: 21 Jun (28) Unaka Mt. (RLK). **Blue Grosbeak**: 27 Jun (1) Mill Creek, Johnson Co. (RLK). **Vesper Sparrow**: 27 Jun (1) Mill Creek, Johnson Co. (RLK); 29 Jun (4) Round Bald, Roan Mt. (RLK). **Savannah Sparrow**: 27 Jun (pair, carrying food) Doe Valley, Johnson Co. (RLK); 27 Jun (1 singing) Mill Creek, Johnson Co. (RLK). **Red Crossbill**: 21 Jun (pair) Unaka Mt. (RLK); 4 Jul (1+) Chimneys, Gr. Smoky Mt. N. P. (DJT). **Pine Siskin**: thru Jun (up to 20) Roan Mt. (RLK, FJA), nest material carrying noted; 30 Jun / 22 Jul (3) Clingman's Dome, Gr. Smoky Mt. N. P. (Mark Churchill / Olivier Le Gall).

Locations: See page 81.

RICHARD P. LEWIS, 407 V.I. Ranch Road, Bristol, TN 37620

LOCATIONS

WESTERN COASTAL PLAIN REGION: Allen Steam Plant-Allen Steam Plant, TVA, Shelby Co.; Beasley Tract-Beasley Tract, Fayette Co.; Black Bayou-Black Bayou, Lake Co.; Britton Ford-Britton Ford, Henry Co.; Chickasaw NWR-Chickasaw National Wildlife Refuge, Lauderdale Co.; Eagle Lake WMA-Eagle Lake Waterfowl Management Area, Shelby Co.; Earth Complex-The EARTH Complex, Shelby Co.; Everett Lake-Everett Lake, Dyer Co.; Fort Pillow S P-Fort Pillow State Park, Lauderdale Co.; Gooch WMA-Gooch Waterfowl Management Area, Hardin Co.; Gr River Rd-Great River Road, Dyer Co.; Hatchie NWR-Hatchie National Wildlife Refuge, Haywood Co.; Heloise-Heloise, Dyer Co.; Hwy 79W-Highway 79W, Lake

Co.; Hwy 103-Highway 103, Dyer Co.; Hwy 104-Highway 104, Lake Co.; Island 13-Island 13, Lake Co.; Jackson-Jackson, Madison Co.; Lauderdale WMA-Lauderdale Waterfowl Management Area, Lauderdale Co.; Lower Hatchie NWR-Lower Hatchie National Wildlife Refuge, Tipton Co.; Long Point-Long Point, Reelfoot Lake, Lake Co.; MLK Park-Martin Luther King Park, Shelby Co.; Memphis-Memphis, Shelby Co.; Moss Island-Moss Island State Waterfowl Refuge, Dyer Co.; Mud Lake-Mud Lake, Lake Co.; Mustin Bottoms-Mustin Bottoms, Shelby Co.; Phillipy-Phillippy, Lake Co.; Pickwick Dam-Pickwick Dam, Hardin Co.; Pickwick S P-Pickwick State Park, Hardin Co.; President's Is.-President's Island, Shelby Co.; Reelfoot L.-Reelfoot Lake, Lake and Obion Cos.; Reelfoot L. NWR-Reelfoot Lake National Wildlife Refuge, Obion Co.; Reelfoot L. S. P.-Reelfoot Lake State Park, Lake Co.; Samburg-Samburg, Obion Co.; Shelby Farms-Shelby Farms (formerly Penal Farm), Shelby Co.; Shelby Forest S. P.-Shelby Forest State Park, Shelby Co.; Walnut Log-Walnut Log, Reelfoot Lake, Obion Co.; Whites Lake-Whites Lake Wildlife Management Area, Dyer Co.; Wolf River WMA-Wolf River Waterfowl Management Area, Fayette Co.; MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38119

EASTERN RIDGE AND VALLEY REGION: Amn Marsh-Amnicola Marsh, Hamilton Co.; Aus Spr-Austin Springs, Washington Co.; Boone L-Boone Lake, Sullivan & Washington Cos; Bra Lev-Brainerd Levee, Hamilton Co.; Chatt-Chattanooga; Cher L-Cherokee Lake, Grainger, Hamblen, & Jefferson Cos. portion; Chick L-Chickamauga Lake, Hamilton Co.; Gvl-Greeneville; Hmlt Co-Hamilton Co.; Hws R-Hiwassee River area, primarily Meigs Co., but also Bradley, McMinn, & Rhea Cos.; Jhn City-Johnson City; Kpt-Kingsport; Ktn Stm P-Kingston Steam Plant, Roane Co.; Lst-Limestone, Washington Co.; Nick L-Nickajack Lake, Marion Co.; Rkn Bot-Rankin Bottoms, Cocke Co.; Sav Bay-Savannah Bay, Hamilton Co.; Soddy Mtn-Soddy Mountain, Hamilton Co.; Wash Co-Washington Co.; RICHARD L. KNIGHT, 804 North Hills Drive, Johnson City, TN 37604

EASTERN MOUNTAIN REGION: Cades Cove-Cades Cove, Great Smoky Mountains National Park; Eliz.-Elizabethton, Carter Co.; Gr. Smoky Mt. N. P.-Great Smoky Mountains Nation Park; Holston V.-Holston Valley, east Sullivan Co.; Middlebrook L.-Middlebrook Lake, Sullivan Co.; Miller L.-Miller Lake near Ripshin, Carter Co.; Roan Mt.-Roan Mountain, Carter Co.; Shady V.-Shady Valley, Johnson Co.; S. Hol. L.-South Holston Lake, Sullivan Co.; Unaka Mt.-Unaka Mountain, Unicoi, Co.; Unicoi-town of Unicoi, Unicoi Co.; Watauga L.-Watauga Lake, Carter Co.; Wilbur L.-Wilbur Lake, Carter Co.; RICHARD P. LEWIS, 407 V.I. Ranch Road, Bristol, TN 37620

ABBREVIATIONS

ad-adult	lrs-latest reported sighting
b-banded	m-male
co.-county	max-maximum one day count
CBC-Christmas Bird Count	m.ob.-many observers
EOP-end of period	Res.-Reservoir
ers-earliest reported sighting	WMA-Wildlife Management Area
f-female	yg-young
fide-reported by	*-documentation submitted
im-immature	

OBSERVERS

FJA	- Fred J. Alsop	JoK	- Joe Kirkpatrick
DPB	- Dianne P. Bean	RLK	- Richard L. Knight
RBB	- Rob B. Biller	TFL	- Tom F. Laughlin
CiB	- Cindy Bonner	JLL	- Jo L. Levy
JWB	- James W. Brooks	RPL	- Richard P. Lewis
CHB	- Carolyn H. Bullock	SSL	- Selma S. Lewis
WOB	- William O. Bullock, Jr.	ACL	- Alice C. Loftin
MLB	- Mary Lynn Buttram	OKM	- O. Knox Martin
KAC	- Kevin A. Calhoun	RM	- Rad Mayfield
RMC	- Ron M. Carrico	SRM	- Sarah R. McBryde
JWC	- J. Wallace Coffey	JHM	- Joe H. McGuinnees
LCC	- Lula C. Coffey	LCM	- Larry C. McDaniel
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The Migrant records observations and studies of birds in Tennessee and adjacent areas. Most articles are written by members of the Tennessee Ornithological Society.

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NOTICE TO RESEARCHERS AND LIBRARIES

Volume 67, Numbers 1-4, is printed in this single issue. Volume 68, Numbers 1-4, has preceded this issue. Several references in this issue include dates later than the cover date of 1996. The journal is behind schedule and it has been necessary to use material which, in some cases, was submitted and accepted later in the year.

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